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A SCHEME FOR A MEDICAL SERVICE FOR THE COMMONWEALTH.

By KEITH J. B. DAVIS,
Tamworth, New South Wales.

THE success of any scheme to provide the public with a satisfactory medical service depends on four main factors: (i) the confidence of the public in the service rendered; (ii) the contentment of the medical men giving the service; (iii) the financial feasibility of the scheme; (iv) adequate provision for preventive medicine. The following scheme fulfils all the foregoing requirements. While the medical profession hitherto has rendered good and faithful service to the public, there have been many disadvantages to both sides, and the service is not so satisfactory as it could be made. In the past the very rich alone have been able to afford the most efficient medical service. The very poor, by virtue of the charity of the medical profession and the philanthropy of others together with some government aid, have received the very best, but have paid for it by the long hours spent in the out-patient departments of the metropolitan hospitals.

The honest wage-earner does not want charity, but he cannot afford full medical service. This scheme provides full medical service for all persons at a fee which they can afford and which should provide the medical profession with satisfactory remuneration.

Many medical men would prefer a fee-per-service basis of practice; but this would destroy many of the benefits that the scheme submitted by the writer would possess. In addition, it would involve the Government in an amount of money, the foreshadowing of which would be difficult if not impossible, and it would involve the medical profession in a considerable amount of book-keeping.

ADMINISTRATION OF THE SCHEME.

For this purpose no better organization could be adopted than that which is already in existence, namely, the local associations of the various branches of the British Medical Association in Australia. As examples the New South Wales Branch and the Northern District Medical Association are selected, since the writer is more familiar with this local association than with any other. While, of course, many of the other local associations represent a greater number of practitioners and a more populous district, yet the principle is the same, with some exceptions; in the metropolitan districts distance is eliminated, and owing to the fact that the metropolis must be treated as a whole in so far as the collection of contributions and the payment of salaries and capitation fees is concerned, advantage may be taken of ease and cheapness of collecting contributions *en masse* at various factories and other large places of employment.

It may be advantageous to combine the collection with that made by the Metropolitan Hospitals Contribution Fund or Hospital Benefits Associations in the country districts, or the friendly societies could cooperate. However, provision is made in the accompanying scheme for the expenses of collection.

The management of the medical side of the scheme is vested in the executive of the various local associations. These are elected annually by the members of the associations and have the confidence of their electors. They could be paid a small meeting fee and out-of-pocket expenses in the country. Provision is made for this.

The duty of the executive would be as follows:

1. To make appointments in the area under its control. In this respect, in towns containing two or a greater number of medical men it would recommend the most suitable applicants selected from among those who had answered the advertisement for the vacant positions, allowing the local men to select their own colleagues.

2. To arrange the salaries of those members of the medical profession receiving salaries, and to authorize capital expenditure where large sums were involved for equipment and buildings *et cetera*.

3. To make rules of service and to discipline members who had transgressed these regulations.

4. To employ and assign men as *locum tenentes* in towns where they were required. In this respect it would be unnecessary to supply *locum tenentes* to larger towns and larger suburban groups, while in the three, two and one man towns and small suburban groups these would be necessary. It is suggested that if young men just leaving hospitals could serve for six months as *locum tenentes* in the various two and three men towns and small groups, where they could be guided by their senior colleagues, then at the end of that period they would be better qualified to do relieving work in the one man towns.

5. To make such regulations regarding non-medical employees as would be necessary.

6. To act as liaison officers between various other local associations and with the parent Branch of the British Medical Association.

Staffing.

The Northern District Medical Association extends from Singleton to Tenterfield, from the Great Dividing Range to districts surrounding Mungindi, Walgett, Coonabarrabran, Merriwa and Muswellbrook. In this area the towns naturally fall into groups, thirteen one man towns, nine two men towns, four three men and four four men towns, with bigger centres like Tamworth, Armidale and Inverell.

The medical personnel of each town would depend on its population. It is suggested that sufficient general practitioners would be engaged so that each would have a minimum of 750 contribution units, a term to be explained later, and a maximum of 1,000 units. This would provide the certainty of a minimum living and prevent any doctor from obtaining so large a list that he could not give adequate attention to his patients.

In addition, each centre would have a triply certificated nurse to act as the child welfare nurse, who at present is stationed at the baby health centre. She would be able to assist in the care of the mother before and after her confinement and in the care of the infant in the neo-natal period. This would provide a much better service than at present, as medical men would be available on the spot to give direction to the nurse and the patient in any doubtful case. In the large centres one or two trained nurses would assist, while a clerical assistant would attend to the records and correspondence. In four centres (Tamworth, Armidale, Moree and Muswellbrook, the last two selected for their geographical situation rather than their population), there would be stationed a pathologist, a radiologist and an ophthalmologist with their appropriate technicians. They would cover, not only their own centre, but all the towns in their immediate district. In some of the larger of these towns a technician would be stationed with smaller X-ray plants and pathological laboratory to assist with the urgent work.

In some local associations and in the metropolitan area it might be advisable to divide the associations and make them smaller. There would be in each association, the consultant staff of physician, general surgeon, ear, nose and throat surgeon, and orthopædic surgeon. These would be available for the assistance of all practitioners. In the specialties of obstetrics and gynæcology, neuro-surgery and psychiatry, urology and dermatology, the men could be shared between several associations, as there would not be sufficient work to employ them full time in any one association. Thus it will be seen that all the latest advances in the various branches of medicine would be readily available to all persons in need of them.

In rural districts a small mileage fee would have to be charged, say 5s. per mile one way for long distance calls. Another feature of contract practice which will cause a great deal of friction if it is not controlled is the unnecessary night call. The provision of a fee of 5s. after 8.30 p.m., as at present existing in friendly society lodge practice, would keep the abuse under control.

The war has shown the medical profession that most contract patients are ready to be cooperative if the request is made to them, and the writer has found that contract patients, realizing that they are receiving medical benefits at a concession rate, are generally more considerate than other patients.

The Finance.

The scheme provides for compulsory insurance. From the accompanying tables it is obvious that provision is made for the payment of capitation fees, salaries, practice expenses, purchase of additional plant, repayment of goodwill and the purchase of the existent plant of medical practitioners. In addition, there is a surplus which will permit of the purchase of the necessary premises over a period of five or ten years in the same manner as goodwill and plant have been purchased. At the end of this period the goodwill, premises and plant will belong in common to the men comprising the local association, and thus, therefore, will need only repairs and replacement. In order to obtain this amount of money the weekly capitation rate will have to be 2s. per family unit and 1s. per single person over the age of sixteen years. The above figure is well within the means of all except those receiving the basic wage and the pensioners. If the basic wage is increased by this amount and some provision is already made in it for medical service, and if a similar addition were made to the old age, invalid and widow's pensions, then this group could be covered. Some provision could be made for travellers and people away from home; the doctor who treated them could be reimbursed from the surplus funds by an agreed amount for the work done for such people.

The writer has discussed the scheme with many wage-earners from all classes of the community, and it is evident from this discussion that advantage would be readily taken of such a scheme. The fact that the hospital contribution scheme throughout the metropolitan and country districts of New South Wales has met with such ready support is proof of this point.

Advantages of the Scheme.

1. The scheme is administered by the medical profession, and so avoids conflict between laymen and medical men—a potent cause of friction in the panel system in Great Britain. There is, however, adequate provision for discipline, and proper auditing would obviate the fear of exploitation of the public. Non-medical employees could be represented.

2. It does not destroy the relation between patient and doctor. This is perhaps one of the most important factors in the success of any scheme. While most people are content to visit a specialist who is recommended to them by their doctor, they are most insistent on having the family doctor of their own choice. This has advantages other than the satisfaction of a mere whim. The doctor knows his patient, his home surroundings, his psychological make-up and his inherited family tendencies, and so can bring a more intelligent viewpoint to the treatment of any ailment. In a time when the world is fighting for freedom, it will be obvious that an important aspect of freedom, which every person with any claim to self-respect demands, is in his choice of doctor. The patient places his life and that of his family in the hands of his doctor; it is but fair to expect that he will be free to choose the medical man in whom he has confidence. Indeed, all men in medical practice can prove that patients will wait weeks and travel a hundred or more miles to submit themselves to the treatment of that one medical man who inspires confidence in them. Any scheme which denies this to the public is doomed to failure. In a State salaried medical service, or for that matter in any salaried medical service, the patient has lost the choice of doctor, and the doctor has lost some of his sense of responsibility to his patient; with it will go some of his interest, because it will mean that other men will have part-time control of treatment of the patient.

3. Since the capitation fee provided is adequate, by taking a maximum of 1,000 units the doctor can earn a satisfactory income and at the same time give better attention to his patients. With the addition of free investigational and specialist assistance he can render a complete "all-in" service to his patients. These features of adequate capitation rate with fewer patients and a free "all-in" service should be readily acceptable to suburban

practitioners and stop some of the drift to Macquarie Street.

4. Group practice will undoubtedly become the practice of the future. It provides facilities for work under the best conditions of mutual help and advice. It allows each man to follow a special branch of medicine in addition to his general work, and thus he is a more useful practitioner. It affords opportunities for more leisure, holidays, and more frequent post-graduate study. Armed with the knowledge that one is working in a group with men subject to the same conditions, one can take holidays with an easier mind. In Tamworth the writer has availed himself of these facilities for seven years and has not employed a *locum tenens* during that period. In metropolitan associations it is obvious that two or more groups will exist in some suburbs to make them more manageable in size.

5. As the scheme allows for a maximum and minimum number of units, it naturally affords the energetic and popular man the reward of his energy without allowing him to do so much work that he is unable to give adequate attention to his patients and becomes a slave to his work.

6. The scheme will provide for the absorption of many clerical assistants, trained nurses, technicians and medical persons as specialists and *locum tenentes*, and thus will contribute to the solution of the post-war unemployment problem.

7. The scheme should be acceptable to the medical profession for the following reasons. (*a*) It makes provision for the purchase of goodwill and existing plant; it will also free young men in the future from the heavy initial costs of commencing in practice. (*b*) It provides the medical man with facilities and assistance which few except Macquarie Street specialists possess today. (*c*) It gives facilities for holidays, post-graduate study and reasonable leisure, without the fear of great financial loss. (*d*) It places at the disposal of each practitioner a library that few can afford today. (*e*) It does not destroy the medical man's initiative, and it will prevent the worse aspect of inter-professional competition and jealousy, as there will be sufficient patients for all practitioners. (*f*) Most important of all, it will banish for ever the "doctor's bill"—a nightmare to many patients, a constant source of annoyance to the doctor, and the greatest cause of friction between them both.

8. The scheme will give the public a most comforting sense of security in and out of periods of sickness.

9. The scheme will provide excellent facilities for the practice of preventive medicine, such as do not exist at present, for the following reasons. (*a*) The free X-ray and pathological tests will detect the early tuberculous lesion and make the thorough examination of contacts possible. (*b*) The doctor will have the time to make periodical examinations of his older patients and thus check many early cases of nephritis, hyperpiesia, cardiac disease, cancer, diabetes and the other chronic diseases. (*c*) Having a definite group of patients, one will be able to urge on them the immunization of their children against preventible diseases, since there is no question of trying to gain fees and the patient has only the trifling cost of the material. (*d*) The doctor can distribute literature on diet, hygiene and the prevention of venereal disease. (*e*) With a child welfare nurse on duty at every medical centre, there will be a great reduction in the infantile death rate; the nurse will be able to encourage the mother during her pregnancy to bring the baby to her for advice and guidance in the neo-natal period. (*f*) With the abolition of the confinement fee and all ante-natal charges, the mother can have no excuse for failure to seek adequate supervision and attention in her pregnancy. (*g*) With the elimination of the unlimited competition among medical men, public lectures can be given by those possessing the ability for such work.

It is submitted that this scheme provides what is required; it makes available adequate medical attention for all at a fee which will be within the means of everyone, and it gives every medical man, with a very few exceptions, as good a living as he now possesses, and allows him to work under better conditions than have ever obtained previously. It can work, and it has worked in California on a voluntary basis as recorded in the *Reader's Digest* of August, 1939. All that is needed is that the Government make insurance compulsory. With understanding, goodwill and cooperation, mixed with a modicum of reasonable "give and take" by all parties, it should be able to be brought to fruition.

ADDENDUM.

Since this scheme has been submitted to the Parliamentary Joint Committee on Social Security and the Convention of Delegates held by the New South Wales Branch of the British Medical Association, the writer has had many discussions on the subject, and as a result the following points are further elucidated.

1. Every man, general practitioner or specialist, will be free to vacate his practice and seek a new one. Once the scheme is in operation he can recover his goodwill only over the period of five years.

2. All appointments of men at present in practice will be confirmed by the executive, and all new appointments will be made by them.

3. The metropolitan associations will later grant the specialists who go to the country a "step up", affording that man a gradual progress towards Macquarie Street and his "fortune".

4. The metropolitan hospitals could be staffed by the specialists of the metropolitan local associations with some of the senior general practitioners and the senior consultants of Macquarie Street.

Figures Supporting the Scheme.

In one man towns the general practitioner will be supported by a triply certificated nurse, while his rent, drugs, dressings and motor car maintenance expenses and depreciation are allowed at the rate of £400 *per annum*. In addition a cleaner is provided and a portable X-ray plant is supplied with films *et cetera*. The figure of £400 may be considered low; but as there will be no expenses for account rendering, stamps and stationery, as the wages of surgery employees including cleaners are provided for separately, and as all long-distance running is paid for direct, this figure, in view, of the statistics supplied from the national health insurance inquiry, should be adequate.

The goodwill of the practice and the equipment would be purchased over a period of five years, one-fifth of the value payable each year without interest.

In the two men towns a clerical assistant, who could be trained to be useful in the surgery as well, is added to the staff.

In the three and four men towns a combined pathological and radiological technician is added to the staff of the centre.

In the larger centres one or more trained nurses are employed.

In Tamworth, in view of the large number of towns served by the radiologist and pathologist, an extra technician is required.

The general practitioner undertaking 1,000 contribution units will derive £2,000 *per annum* net, and the scheme will pay him £2 *per annum* for each unit, whether the person is married or single. Similarly the man with 750 units will obtain £1,500 *per annum* net. In the Northern District Medical Association there are 80 general practitioners; but it is suggested that there should be 85, the extras being two at Tamworth and one each at Werris Creek, Glen Innes, Moree and Gunnedah. This would give approximately 925 units per practitioner (78,584 ÷ 85), an average income of £1,850 *per annum* each, without workers' compensation case fees and mileage rates (£1,850 × 85 = £157,250).

District Requirements.

	£	£
Four *locum tenentes*:		
2 at £600 *per annum*	1,200	
2 at £650 *per annum*	1,300	
	2,500	
Travelling expenses, £100 *per annum* each	400	
Board, £3 per week each (allowed one month's holiday each on full pay)	600	
		3,500
Four pathologists and four radiographers (Tamworth, Armidale, Muswellbrook, Moree):		
2 of each at £1,250 *per annum*	5,000	
2 of each at £1,100 *per annum*	4,400	
	9,400	
Travelling expenses, £200 *per annum* each	1,600	
		11,000
One consultant surgeon and one consultant physician at £2,000 *per annum* each	4,000	
Travelling expenses, £500 *per annum* each	1,000	
		5,000
One consulting ear, nose and throat surgeon and one consulting orthopædic surgeon at £1,500 *per annum* each	3,000	
Travelling expenses, £500 *per annum* each	1,000	
		4,000
Four ophthalmologists at £1,500 *per annum* each	6,000	
Four skilled technicians at £400 *per annum* each	1,600	
Travelling expenses at £200 *per annum* each	800	
		8,400
Retaining fee for specialists in urology, gynæcology, dermatology, psychiatry and neuro-surgery, at £500 *per annum* each	2,500	
Travelling expenses, £200 *per annum* each	1,000	
		3,500
Accountant, £800 *per annum*, with travelling expenses £100 *per annum*	900	
Three clerical assistants	500	
Office expenses, stamps, stationery, telephone *et cetera*	400	
Expenses in connexion with executive meetings	600	
		2,400
One-fifth of cost of additional pathological laboratories:		
Seven (Muswellbrook, Scone, Quirindi, Glen Innes, Tenterfield, Inverell, Narrabri and Gunnedah) at £250	1,750	
Three (Armidale, Moree and Muswellbrook) at £500	1,500	
(£3,250 × ⅕)		650
One-fifth of the cost of additional X-ray equipment and purchase of that already owned by practitioners estimated at £16,000. X-ray plants are already in existence in most hospitals		3,200
Contingencies for preventive medicine, research and literature on preventive medicine		2,000
Contingencies not foreseen		3,000
		£46,650

This works out at 11s. 6d. per unit *per annum*.

Table I.

Town Population and Contribution Units.	Personnel, Salaries and Wages *per Annum*. Personnel.	Total Cost.	X-Ray and Pathological Equipment. Plant.	Maintenance Cost *per Annum*.	Maintenance Cost of Practices *per Annum*.	Goodwill Value of Existing Practices (1/5 *per Annum*).	Estimated Value of Present Equipment (1/5 *per Annum*).	Town's Annual Contribution to District Pool.	Total Annual Expenditure of Town.	Annual Income from Units in Town and District.
		£		£	£			£	£	£
Tamworth:										
	3 general practitioners at £2,000	6,000							19,741	
	8 general practitioners at £1,500	12,000	X-ray plant at hospital	600		9 practices at	9 practices at		800	
25,250; 10,100 units.	2 nurses at £230	460	Pathological laboratory at hospital		4,400	£16,000	£2,250	5,807	4,400	42,307
	1 triply certificated nurse	269							3,200	
	1 clerical assistant	156		200					450	
	2 technicians at £350	700								
	Cleaning	156							5,807	
Totals		£19,741		£800	£4,400	£3,200	£450	£5,807	£34,398	£42,307
Narrabri:										
	2 general practitioners at £2,000	4,000							6,327	
	1 general practitioner at £1,500	1,500	X-ray plant at hospital	200			3 practices at £200 each.		250	
8,140; 3,256 units.	1 triply certificated nurse	269	Pathological laboratory at hospital to be established.		1,200	4,000		1,888	1,200	13,639
	1 technician	350							800	
	1 clerical assistant	104		50					120	
	1 cleaner	104							1,888	
Totals		£6,327		£250	£1,200	£800	£120	£1,888	£10,585	£13,639
Bingara:										
	1 general practitioner	2,000	X-ray plant at hospital	50					2,321	
3,150; 1,260 units.	1 triply certificated nurse	269			400	1,500	200	730	50	5,278
	1 cleaner	52							400	
									300	
									40	
									730	
Totals		£2,321		£50	£400	£300	£40	£730	£3,841	£5,278

Receipts and Expenditure.

The contributions will produce £329,190. The manner in which this figure is calculated is as follows. In 1938 the National Health Insurance inquiry showed that every lodge patient represented 2·5 individuals; of every eighteen lodge patients eleven were married and seven unmarried. Further, the population of the area covered by the Northern District Medical Association is 196,461 (police figures); the number of units is thus 78,584 (196,461 divided by 2·5). The number of married persons is thus

48,024 ($78,584 \times \frac{11}{18}$), and the number of unmarried persons is 30,560 ($78,584 \times \frac{7}{18}$). Married persons' contributions will provide £249,724 *per annum* (2s. × 48,024 × 52) and unmarried persons' contributions will provide £79,456 (1s. × 30,560 × 52). The total contributions thus provide £329,180.

The expenses are calculated to be as follows.

	£
Capitation fees to general practitioners ..	157,250
Salaries to nurses, technicians and other non-medical persons	19,475
Supplies for X-ray plants and pathological laboratories	4,925
Expenses of conducting practices	34,400
Estimated payments for purchase of goodwill[1]	23,440
Estimated payment for purchase of existing equipment[1]	3,400
Specialist pool, administrative costs and other district requirements	46,650
Total	£289,540

This leaves a surplus of £39,640, which would allow for contributors treated while absent from their own districts and for anæsthetics.

To illustrate the manner in which the figures supporting this scheme have been constructed, it is proposed to give the figures for Tamworth (a large centre), Narrabri (a medium centre) and Bingara (a one man town) (Table I). The complete tables are in the hands of the Medical Secretary of the New South Wales Branch of the British Medical Association, and have been viewed by the Editor; but because space and paper are scarce and because the principle has been laid down already as being the same for each type of town, they have been omitted in their entirety.

CONSIDERATIONS ON THE SCHEME FOR A SALARIED MEDICAL SERVICE OF THE NATIONAL HEALTH AND MEDICAL RESEARCH COUNCIL.

By C. T. PIPER, M.B., B.S., M.R.C.P.,
Port Lincoln, South Australia.

THE scheme put forward by the National Health and Medical Research Council for a salaried medical service confronts us with a double challenge. Firstly, it offers so complete a personal and public health service that it defies us to do better; secondly, in asking us to give up our independence in favour of cooperative effort, it challenges us to vindicate our contention that our only interest in any scheme is the welfare of the patient, and to take a leading place in the establishment of the utterly necessary new order.

It is necessary that consideration of any proposals must be made with due regard to the necessity of a new order, and it is necessary that we must come to it with minds divested of preconceived ideas, of prejudice and of self-interest. We must think of it in terms of the medical practice of the future, not of its immediate effect on ourselves, our pockets and our ambitions. Unless we do so, we shall have failed lamentably in our duty as doctors and as citizens.

No thinking person will dispute the necessity of a new order. Perpetuation of the old one can only result in more wars. More wars amongst the white races can only result in the end of white civilization. And it is a plain biological fact that the threatened extinction of that civilization can be averted only by the submission of the individual to the interests of the race, and that every individual of that civilization will have to be prepared to make considerable sacrifice of personal interest, and place the community far above self, if that civilization is to survive. This applies to the nations as well as to the peoples of the nations. Just what form the new order will take we cannot know; but it is sufficiently evident that its basis will have to be a doctrine of mutual goodwill and helpfulness, of international and intranational trust and cooperation. The old competitive spirit will have to go, and cooperation and mutual sharing must take its place. A new idealogical basis will have to be found on which to rebuild civilization; the doctrine of it is not new, but is propounded in the Christian ethic.

This is not the place to enter on a politico-economic discussion; but an appreciation of these points is necessary if we are to bring clear thought to this matter. Whatever one's personal feelings may be, the foregoing statements are simply plain, cold fact, and all future moves must be considered in the light of them. Whether mankind is sufficiently advanced intellectually to take the right road is doubtful, and there is going to be a dire need of leadership in the post-war world to take us to our right destination. As a profession, we have a great power for leadership, which we can use for good or for ill, and it is our plain duty, as citizens who want a better future for our children, to take a foremost part in accepting any sacrifice which may be necessary to bring about the desired end.

There is a strong preconceived idea that all was well in pre-war medical practice. We were all doing well. Some patients had a rather better service than others; but the general argument is that that was immaterial, because they paid for it. Now, the doctrine that I have put forward may be summed up simply as "a fair go for everybody"; this means an "even go". And it is quite certain that under the old system an "even go" for everybody was not available in regard to the primary human commodity, health, which is also the second fundamental of a nation's wealth (the first being its people, the third its natural resources). The State has recognized this fact and has tried to correct some of the inequalities. Now the people have recognized it, and there is a demand from all sections of the community for better health service. It is therefore inevitable that State intrusion on private practice will increase. It is a natural part of the evolution of the cooperative national system, which is the logical development of the Atlantic Charter and the phase we call democracy.

Pre-war medicine did not represent an "even go" for everybody, and this scheme is the most comprehensive and constructive that has ever been put forward to provide this desideratum. If it is implemented in the generous spirit of its conception, it will provide a service as near perfection as it is possible for the human mind to formulate. The service it will give to extra-metropolitan residents is so great an improvement on the old system that I cannot see how any rural practitioner can conscientiously oppose it. I think that we should consult our consciences very closely in the light of all these considerations before we condemn it out of hand. Provided that we have dispersed the fog of self-interest and the preconceived idea, I think we shall see that we must accept the principle of the nationalization of the nation's health and confine our discussion to the best means of bringing it about.

Self-Interest, Prejudice and the Preconceived Idea.

A primary necessity in connexion with the scheme is that it shall be brought in with a minimum amount of unhappiness. It is necessary to state this here, because some of the things I have to say have an important bearing on this point. In this connexion possibly nothing could be so disturbing as the feeling that we medical practitioners were being forced to accept something at a pecuniary loss to ourselves. Our self-interest in the matter can be considered under two heads, financial and professional.

Financial Considerations.

The salary range is adequate. The "junior general practitioner" will start where many highly trained engineers and other professional personnel leave off. There

[1] These figures are one-fifth of the total amount payable *per annum*.

are certain factors in the financial life of a doctor which foster in us rather megalomanic ideas in the matter of necessary income. I do not propose to discuss them here, but I should be glad to do so by personal correspondence.

Our present vested interest in the matter of capital invested in practices and equipment is covered by a clause at the tail of the council's report, which was unfortunately not printed in the summary that appeared in THE MEDICAL JOURNAL OF AUSTRALIA; the clause states that "compensation to medical men" is a thing "yet to be considered". The fairest compensation would be an outright purchase of the practices concerned at 1939 valuation, and of tangibles at valuation. Compensation should be on the generous side. A pinchbeck policy on the part of the Government might wreck the scheme from the start. There seems to be a proposition that compensation should be deferred and take the form of superannuation. This can hardly be accepted as a fair proposition at all. After all, one has to live long enough to draw superannuation. In connexion with the question of superannuation, it should be laid down that the condition of the present health should be no bar to admission to the service at the time of its inception. There must be a proportion of men practising at any time who would not pass the medical examination necessary for admission to government service and superannuation.

Professional Self-Interest.

Professional self-interest is an aspect of self-interest which we have every right to consider, for in it is bound up that fuller life which the new order should bring to us all, and the very success of the service itself. We must be certain that under any scheme we remain doctors and nothing but doctors, and that the opportunity for a full and continually inspired professional life is not filched from us by the stultifying influence of a bureaucracy. The meaning of this statement will become clear later on.

There are certain preconceived ideas which always come into the foreground when any such scheme is mooted. They are concerned with the necessity for competition and for free choice of doctor, and with the fear that in a State medical service we shall become mere fillers-in of forms and answerers of "please explains", and that the medical service of the future will become the plaything of an official bureaucracy.

The Necessity of Competition.—It is highly probable, I think, that competition between doctors for the sake of local prestige (and the income that goes with it) results in more harm to their patients than benefit. It probably gives rise to more delay in obtaining consultation, more unnecessary operations and treatment, more over-ambitious surgery, than it is worth. It is the direct cause of occasional bitter quarrels, which disrupt whole communities and do a great deal to discredit us all. At bottom, professional jealousy is too often financial jealousy. It is commonplace to find doctors in isolated country areas, where the law of the jungle does not run, doing work of equal quality to that done by their fiercely competing colleagues in the city. The records of research and of public medical services everywhere are proof sufficient that competition is not necessary to enthusiasm. There will always be competition in the life of the doctor, a competition with a foe far more grim and worthy than our professional neighbours. Only those who are not in medicine as a vocation will be insensible of it, and they are better growing sheep.

Free Choice of Doctor.—There is more to be said for free choice of doctor, although free choice is not so free a right to our patients as we think it is. Under the scheme there will still be a fairly wide choice of consultants and among the senior private practitioners, who will be able to carry on private practice as consultant general practitioners. It will still be possible to carry on the family system and to allow free choice within the clinic. Any over-crowding of one man's clinic may be readily rectified by the officer-in-charge, who will be able to adjust the matter by a redistribution of those patients whom nobody wants, and of whom there will always be a proportion. Actually, the centre will provide a wider choice than pertains at present, as the patient will be able to choose from a dozen doctors at one place, instead of from three or four within easy access of his residence. I know that the number of general practitioners attached to the centre is small; but I think that the suburban centres, like the rural ones, will ultimately be staffed by specialist general practitioners. The convenors of the scheme have not realized the extent to which domiciliary visiting will have to go on under any scheme, and it is this which will necessitate the enlargement of general practitioner staffs at the expense of the specialists. In any case, it is my observation that where doctors are working in partnership they become equally trusted by the patients of the firm, and the centres would soon come to be regarded as large partnership concerns, the members of which are completely in each other's confidence and work as one. A last thought: is it not possible that a good deal of our insistence on free choice of doctor has its origin in our own personal vanity? This is worthy of some reflection.

The Possibility of Our Absorption by a Bureaucracy.—Brown (THE MEDICAL JOURNAL OF AUSTRALIA, October 31, 1942) has dealt ably with this question. It is hardly necessary to amplify his statements, except to emphasize the importance of realizing the possibility and of having our own proposition and being determinedly ready to fight for it. The important thing is that the management shall be divorced entirely from political control, and that the medical service shall be managed entirely by medical men and that all medical matters shall be under their jurisdiction. This is one of the things that we have a right to fight for with determination, and the professional self-interest involved is the one form of self-interest to which we must adhere. The only government influence should be that of a few government nominees on State and Federal committees, whose duty would be that of liaison officers only. These medical committees should be elective in nature, and proportional representation should be the rule.

There is a fear that we shall be overwhelmed by a mass of clerical work, a fear that was very likely to be realized under the national health insurance proposals. But it is noted that in this scheme we shall have centres with nurses and clerks to do our writing for us, and we should find that the amount of writing that we shall have to do will be little more than that required at present by our memory-jogging notes and primary book-keeping—that is, if the scheme is administered by those who are themselves medical practitioners.

It seems that a most fruitful source of petty annoyance and "please explains" in parallel schemes is what is known as "over-prescribing". This could be overcome, and should be overcome, by the exclusion from the scheme of the supply of free medicines. Medical service is a thing of unassessable value except by the empiricism of custom. Medicines are goods to be bought for cash, and they should be sold for cash. The patient could then have the medicine he needed, and not the cheap medicine the local pharmacopœia says he can have. The provision of free medicine is a potent cause of over-crowding of clinics and of "medicine sucking", two things with which we can very well dispense. If the patient cannot afford the medicine, then give it to him by all means; otherwise, let him pay for it.

Specialist Services.—It is necessary that we should have a clearer definition of the function of the specialist services. There is a grave danger that all seriously ill patients will pass into their hands, and that the general practitioner will deal only in minor maladies, in certificates and in "Rep. Mists." for the patients with chronic complaints who will infest every centre. Life will be a poor thing for the general practitioner if this is to be so. General practice is a specialty of its own, and I would match Brown's "specialist general practitioners" with general practitioner specialists whose specialty is general practice. These are the people who, knowing their patients' needs and their own limitations, conscientiously discard their tendency to specialism and study only those requirements. Efficiency in that specialty of general practice is

to be encouraged if we are to have an efficient general practice—a primary requisite in any scheme; but we cannot have it unless those things at present in the general practitioner's province are left to him.

In the scheme it is proposed to take young men at about their third year of service and make trainee specialists of them. Presumably the idea is to get value for money. I only quote famous men when I say that no man is fit to specialize until he is completely conversant with the human body and its ills as a whole. He can become so only by experience, and that experience can be gained only by a long period of general practice. Persistence in early specialism can result only in the emergence of a race of technicians who are not physicians, to whom a patient is merely an organism attached to a lung, a tonsil or a set of genitalia, according to predilection.

Furthermore, this scheme would deprive the general practitioner of the incentive to improve in his work, which is so desirable. General practice is an interesting life for many years; but the time comes when we feel that the experience of years may well be devoted to doing a better job of work in a narrower sphere. We seek new horizons, perhaps to follow some special gleam which shone brightly in youth and has beckoned us through the years. We seek to narrow our field of interest, to eliminate those things which have become just an oft-repeated duty. These are the things that inspiration is made of, and if you take inspiration from him, intelligent man will turn aside to something wherein he can create to his own satisfaction. It is very necessary that inspiration be kept alive in the general practitioner. It should be the ambition of any scheme to attract to it the men with the best brains in the community. It would be a pity to stultify them, and this may easily occur if some avenue of progress beyond that of salary is not left open for them. It is therefore necessary that the right to specialist position shall be open to any man in the service, provided that he has adequate qualification as judged by his fellows. It will then be possible for a young man to spend his early years finding out where his true interest lies, and having found it, to apply himself, through the activities of the centre and his post-graduate courses, to the desired end. He will then follow the graded path from junior general practitioner to senior general practitioner, to specialist general practitioner and then to full specialist—the path which is the index of so much of the best in our present practice—and the opportunity will be there for all.

Comment.—The last few paragraphs define my conception of professional self-interest. We must keep our inspiration alive; that is something for which we should fight.

The Place of Specialists.

Brown and others have made the point that the proper place of the specialist is in the cities. In the country their minds and talents will rust away. Specialist general practitioners must man the country posts, but they will need specialist consultants at times, and the provision of consultant services to these areas is a most potent argument for the induction of the scheme. The answer is, of course, the aeroplane. By its use consultants could be conveyed to any point in Australia in a few hours, at a reasonable cost, and with greater speed and comfort than from some nearer base by car. This would necessitate the establishment of aerial bases with mobile teams and equipment at the city periphery; but these are matters of detail only.

Dentists.

It seems an extraordinary thing to me that no scheme has ever included the dentists, whose work is, after all, only another surgical specialty on the outskirts of our profession. No health scheme can be complete which does not include a full dental service, and it seems to me illogical that the dentists should be exempt while we are drawn in.

Establishment of Field Experiments.

The scheme is, of course, revolutionary; but we are living in a revolutionary time. It is possible, however, for evolution to occur even in revolution. Brown has pointed out the need for careful investigation in all areas before the scheme is drawn up in detail. Even so, unforeseen things will occur which may bring the whole scheme into disrepute. Dr. Cumpston, in his evidence before the Parliamentary Joint Committee on Social Security, revealed that it was intended to introduce the scheme in outback areas at first. I had thought of this as being a sound procedure for several reasons. The first is that the need is great. Only one who has worked in the desert places can realize what professional isolation means to practitioners and patients. The second is that local practitioners, realizing the benefits implicit in the scheme, could not conscientiously refuse to come in or to sell their practices and so escape from dreariness. The third is that there is no likelihood of conflict with private hospital authorities. The fourth, and the most important from the point of view of the scheme, is that in these rural areas the scheme could be tried, its weaknesses discovered, its faults exposed. A year of experiment in half a dozen such areas or in isolated urban communities, the pooling of the experience gained, and the stage would be set for the extension of the scheme to areas closer to cities, more thickly populated, where more weaknesses would come to light. Thus a gradual centripetal progression would ensure that the scheme, when brought to the city, would be in such shape that it would move smoothly into being. On the other hand, if the scheme proved a failure in the outback parts, no great harm would have been done; the people would have had at least the temporary benefit of it, and the whole thing could be abandoned and a fresh start made.

I am aware that this idea will appeal to the conservative "die-hards" as a picture comparable to that drawn by the soil experts, who predict the dreadful spread from the denuded sandhills of the interior of a crawling menace, creeping ever nearer the lovely cities, finally to engulf them in abomination. But it seems to me a wise procedure.

Conclusion.

I have tried to express in this paper the results of much hard thinking on these matters. There is an infinity of other things which could be discussed; but space does not permit. Not the least of these is the freeing of the local medical officers of health from the trammels and suspicion of local vested interest, and this should give a great fillip to all branches of local preventive medicine. I have considered the scheme in relation to the national health insurance proposals and find it to be so far superior that national health insurance can no longer be considered if this offer stands. National health insurance merely extends and perpetuates the iniquities of the lodge system. Capitation fees are attractive; but they offer only more money and more slavery. This scheme offers us materially a good living, good circumstances of work, a modicum of time to call our own, the opportunity to enjoy family life, and the liberation of our womenfolk from the abominable thraldom of bells. But I do not wish it to be thought that I am in favour of accepting the scheme as it stands, even with the few modifications I have suggested. I think we should accept the principle, and, having accepted it, we should ask that the scheme be used as a basis only for a final draft which shall be prepared by the practising doctors of the community.

I am aware that many of my conclusions will run counter to accepted modes of thought, and that I shall be suspected of communist leanings and of all kinds of other "isms". I regret that my only political desire is to see everybody have an "even go". My conclusions as published here are not necessarily in accord with my personal desires; but as there are several things in them which have not previously been said, and which should be said on this matter, I think it is necessary that I offer them for publication.

Space does not permit of the adduction of all the arguments necessary to prove the case; but I would make the following suggestion to conservative folk who cannot see reason in my remarks and regard this paper as so much subversive propaganda. Try to rid yourselves of

self-interest, of prejudice and of your preconceived ideas; think of the new order, not as to how it will affect you personally, but as to how it must affect your children, the people who will have to stand or fall by it. I am afraid that you will be forced to much the same conclusions as I have reached.

Reviews.

DISEASES OF CHILDREN.

"A Handbook on Diseases of Children", by Dr. Bruce Williamson, which was first published in 1933, has deservedly reached the third edition.[1] It is an extremely valuable summary of present knowledge of the subject. As its name implies, it merely epitomizes the matter, and in that way scarcely supplies adequate detailed information for specialists or for those who want to make anything approaching an extensive study of any given item. It can, however, be recommended with confidence to the attention of general practitioners and medical students.

In the present edition there will be found frequent references to the practical details of the use of sulphonamide compounds in the treatment of many conditions. The book is well worth having on that account alone. Another new feature is the provision of six coloured illustrations depicting the common exanthematous rashes.

Readers will be especially interested in the author's views on the efficacy of splenectomy in *purpura hæmorrhagica*. He and G. A. Sutherland were responsible for the introduction of that form of treatment in England. In a review of the three original cases reported he states that "apart from temporary improvement these cases have continued to have skin manifestations and external hæmorrhages. Today, some sixteen years after the operation, they can be diagnosed at sight as victims of purpura hæmorrhagica (and of splenectomy)".

The format, paper and type of the book are attractive, and the arrangement is extremely satisfactory.

A HANDBOOK ON HYGIENE.

C. N. Atkins's book on "Hygiene in Simple Language" can be fairly stated to have achieved its objective, namely, to be of value to military medical officers.[2] It is not a comprehensive treatise, but is full of a surprising wealth of practical details and shrewd hints especially directed to meeting difficulties which arise in the daily work of health protection in the field. Its chief value is as supplementary and explanatory of the official manual of sanitation.

An unusual feature is the mention of actual trade productions with the address of the manufacturer or supplier. War needs justify this, for it is just the information the medical officer so often would like to have.

In the mass of facts one could readily find statements to criticize. Health authorities are not likely to favour the inclusion of human fæces in farm manure (Indore process). After all, human excreta are the main source of certain human diseases and horse manure is not. Recent evidence would seem to make the benzyl benzoate method preferable for scabies. Many "skin men" still favour sulphur, but the benzyl benzoate method is certainly worth giving in full. The notification list of infectious disease is not correct for New South Wales. A fuller treatment of mosquito repellents, disposal of sullage water, use of the Baber and the Hutchinson larval traps, preferred types of incinerators, the value of the bored hole latrine, the prophylaxis of malaria and dysentery and venereal disease, for example, might well be described in the next edition. The book is handy for the pocket, its language is clear and concise, it is well worth the attention particularly of regimental medical officers and officers of hygiene sections.

[1] "A Handbook on Diseases of Children Including Dietetics and the Common Fevers", by Bruce Williamson, M.D. (Edinburgh), F.R.C.P. (London); Third Edition; 1942. Edinburgh: E. and S. Livingstone. 7½" × 5", pp. 375, with many illustrations. Price: 12s. 6d. net.

[2] "Hygiene in Simple Language: Military and Civil", by C. N. Atkins, E.D., M.B., Ch.B., D.P.H.; 1941. Melbourne: Ramsay, Ware Publishing Proprietary Limited. Demy 8vo, pp. 116. Price: 12s. 6d. net.

AN ATLAS OF BLOOD DISEASES.

The name of A. Piney appears on the title page of three different small books published recently. The first of these, entitled "Sternal Puncture: A Method of Clinical and Cytological Investigation", appeared in 1941; the second, "A Synopsis of Blood Diseases", was published in 1942. A third volume is now to hand, in the form of a fifth edition of "Clinical Atlas of Blood Diseases", by A. Piney and Stanley Wyard.[1] The first edition of this book was published in 1930. In their preface to the fifth edition, the authors state that all sections of the book have been thoroughly revised, and several have been completey rearranged and rewritten. They express their gratitude to their publishers for enabling them "to enlarge the text very considerably at a time when the provision of more space presents peculiar difficulties". In spite of this mention of enlargement, the "Clinical Atlas of Blood Diseases" remains a slim, light, easily handled volume, and for this idea the authors are greatly to be commended. But alas, they have attempted the impossible, an encyclopædia in so small a space must—and this one does—contain certain omissions and inaccuracies. In the section on erythroblastosis, for instance, no mention is made of work on the Rh factor.

Of the 46 full-page illustrations (plates 1 to 46), 43 are coloured, some well, some indifferently and some very badly. No mention is made of magnification, nor of the methods of staining used. Eight plates show blood cells in various stages of development, thirty depict blood films characteristic of various blood diseases, four show cells from the bone marrow, and one illustrates leuchæmic retinitis. Interspersed among these pictures are short descriptions of the cells of the blood, and very sketchy notes about diseases of the blood and conditions related to these, some very remotely. Why, for instance, should Gaucher's disease, scurvy and *status lymphaticus* be included in a volume so small as this one? With such limited space it would surely have been wiser to concentrate on accurate and reliable descriptions of the more common conditions, especially those illustrated in the book. There is a table of contents, but no list of illustrations, which is a pity, for the plates, with all their faults, are the most valuable part of this little book. The text belongs to the category of "Digests", but is less accurate and more ungrammatical than most of these.

ALLERGY.

W. B. Blanton's excellent handbook is particularly suited for those commencing the study of allergy.[2] The author gives descriptions of the anaphylactic phenomena in guinea-pigs, rabbits, dogs and man. These descriptions are followed by a definition of allergy, a résumé of the terminology, and then a full account of the causes of allergic diseases. Methods of history taking, physical examination and skin tests are briefly but soundly dealt with. There is an account of pollen allergy and of the main pollens giving rise to allergy in America. Ingestant, absorbent, injectant and contactant causes of allergy are finally described. In the second half of the book hay fever, asthma, dermatological and gastro-intestinal and other allergies are briefly discussed. In the section on asthma the author quotes Kern who found sinus disease in 70% of asthmatics, and Cooke who found that 82% were considerably improved after complete radical removal of infection in the antra. Unfortunately there is no reference to the number of patients who have suffered from nasal operations without obvious benefit to their asthma.

If this book fails from the practitioner's viewpoint, to some extent it is because the author gives too wide a scope for investigation and is not sufficiently definite with regard to treatment. For instance, the above quotations concerning sinus infection and radical antrum operations are misleading, and from the practical viewpoint should not be accepted by beginners without very careful testing. Actually the book is more valuable for its presentation of the theory than the practice of allergy.

[1] "Clinical Atlas of Blood Diseases", by A. Piney, M.D., M.R.C.P., and Stanley Wyard, M.D., F.R.C.P.; Fifth Edition; 1942. London: J. and A. Churchill Limited. 8" × 5", pp. 162, with 43 coloured plates and 3 illustrations. Price: 16s. net.

[2] "A Handbook of Allergy for Students and Practitioners", by Wyndham B. Blanton, M.A., M.D., Litt.D.; 1942. Springfield: Charles C. Thomas. London: Baillière, Tindall and Cox. 9" × 5¾", pp. 202, with illustrations, some of which are in colour. Price: $3.00, post paid.

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POTASSIUM AND THE WATER BALANCE IN ALLERGY: A FIELD FOR CLINICAL RESEARCH.

No subject in the whole range of medicine has a greater interest for the clinician than the condition known as allergy. Bray has drawn attention to the confused nomenclature, allergy and anaphylaxis being only two of the names used to denote the one clinical condition.[1] Bray uses the term hypersensitiveness and divides it into two forms, anaphylaxis and allergy. Anaphylaxis, he states, is the term applied to the induced manifestations of hypersensitiveness in laboratory animals; allergy is the term applied (*a*) to the natural or spontaneous manifestations of hypersensitiveness in man, which include asthma, eczema, hay fever, urticaria and migraine; (*b*) to induced states such as serum sickness and the passive transfer of hypersensitiveness by sensitized serum. There is today a regrettable tendency to use the term allergy to explain many diverse and obscure manifestations in clinical medicine. This tendency has sometimes been carried to such extremes that the earnest clinician seeking for knowledge has to overcome a real and almost involuntary suspicion before he can pay serious attention to any condition bearing the tentative tag of allergy. This is one, although perhaps a minor, reason why the position in regard to allergy should be clarified. Anaphylaxis is manifest in animals by the well-known antigen-antibody reaction; in allergy there is a somewhat similar reaction, described by Bray as the allergen-allergin reaction. When allergy and anaphylaxis are considered from the point of view of these reactions there becomes apparent a need to distinguish between the state of the tissues which make reaction possible, the nature or mechanism of the phenomenon and the origin and nature of the symptoms. Of these three aspects the first is probably the most important, for it is clear that if all the chemical and physical tissue changes on which allergy depends are known and understood, prevention may be possible.

In the summary to one of his chapters Bray states that biochemical studies of allergic persons reveal tendencies towards a low blood-sugar level, a low cell chloride content and a high amino acid content of the blood, a normal blood cholesterol and blood calcium content, with an inclination towards low figures for the blood phosphorus and potassium. "During the attack the specific allergen is excreted in the urine in the so-called 'proteose', at which time there is an increase in the free acidity and the specific gravity of the urine, and urates are deposited and chlorides retained, and the ammonia excretion rises. Gastric analyses show a well-marked deficiency of acid secretion, and liver function tests indicate some hepatic insufficiency." For some time observers have attached importance to a disturbed potassium-calcium ratio in the economy of the body of allergic subjects. Coca, Walzer and Thommen state in their textbook[1] that Zondek in 1920 brought out the importance of the nature of the electrolytes in body fluids in experiments with the isolated frog's heart suspended in Ringer's solution. By varying the calcium-potassium ratio Zondek was able to influence the tissue response to various stimuli. Contractility, he found, was increased in "a high potassium solution" and diminished when calcium was in excess. Similar findings were reported by Kraus. In these circumstances it is not surprising that potassium was used in the treatment of allergic conditions. In 1938 H. A. Rusk and B. D. Kenamore[2] found that potassium chloride was effective in the treatment of six patients suffering from urticaria. Later on in the same year Benson Bloom obtained benefit in twenty-nine cases of hay fever when he treated the patients with potassium chloride.[3] He gave the salt in five-grain doses in a glass of water. Bloom also referred to the use of potassium salts in urticaria, eczema, nasal polyposis, chronic allergic sinusitis and migraine. He found that in chronic asthma potassium chloride was ineffective; he added that the use of potassium iodide in combination with a diet poor in salt seemed helpful but not curative. From his clinical observations Bloom concluded that potassium plays an important part in the mechanism of allergy. He thought that other electrolytes, including sodium and calcium chloride and iodide, take part in the complex disturbance. Referring to recent work on the altered electrolyte metabolism in endocrine disturbances, Bloom expressed the opinion that it is quite likely that allergy is basically an endocrine dysfunction with secondary disturbances of electrolyte metabolism. He admitted that this was only an hypothesis which remained to be demonstrated. The concept that in allergy the major disturbance is one of altered electrolyte metabolism, immediately suggested to Bloom that proteins produce allergic manifestations only when the underlying mechanism is disturbed.

Richard A. Kern, writing in 1940 from the hospital of the University of Pennsylvania, where he is professor of clinical medicine, on the subject of water balance in allergy,[4] holds that Bloom was wrong when he "jumped to the conclusion" that potassium plays a major role in the

[1] G. W. Bray: "Recent Advances in Allergy", 1931.

[1] A. F. Coca, M. Walzer and A. A. Thommen: "Asthma and Hay Fever in Theory and Practice", 1931.

[2] H. A. Rusk and B. D. Kenamore: "Urticaria: A New Therapeutic Approach", *Annals of Internal Medicine*, Volume XI, April, 1938, page 1838.

[3] B. Bloom: "The Use of Potassium Salts in Hay Fever: A Preliminary Report", *The Journal of the American Medical Association*, Volume CXI, December 17, 1938, page 2281.

[4] R. A. Kern: "The Role of Water Balance in the Clinical Manifestations of Allergy", *The American Journal of the Medical Sciences*, Volume CXCIX, June, 1940, page 778.

mechanism of allergy itself. Kern states that Bloom lost sight of the original point made by M. H. Barker.[1] Barker, according to him, reported the disappearance of œdema of cardiac or nephrotic origin in a number of patients who had been placed on a diet with a high potassium and a low sodium content. The theory advanced by Kern is shortly that changes in the water balance of the body may influence the occurrence of allergic phenomena. Water and salt, he holds, will favour the development of allergic reactions; dehydration and salt loss will antagonize allergic reactions. "Increased intake of sodium, by tending to increase interstitial fluid and œdema, will also favour the development of allergic reactions. Increased intake of potassium, or decreased intake of sodium, by tending to increase intracellular fluid and to decrease interstitial fluid and œdema, will antagonize allergic reactions." Since the effect of hydration and dehydration on allergic reactions is non-specific, Kern holds that the causes initiating changes in water balance must not have attributed to them any specific ætiological significance in the causation of allergy itself. Kern's paper should be studied by every practitioner interested in the subject of allergy; to do justice to it at present in the small amount of space available is difficult. Kern begins by correcting what he calls one of his own mistakes. In 1934 he published an observation on allergy and diabetes and on that occasion he suggested that in allergy there might be operative an endocrine factor which stood in reciprocal relationship to the endocrine factor in diabetes; the factor suggested by him was hypofunction of the adrenals. He now advances evidence to show that in many factors concerned in the production or relief of allergy there is involved a more or less pronounced shift in the water balance. He explains the actions of sodium and potassium in the following words:

> Potassium in the body occurs chiefly within the cells where it binds much of the intracellular water. Sodium, on the other hand, is mostly extracellular and so influences the amount of interstitial fluid. The administration of large amounts of a potassium salt produces first an increase of intracellular water at the expense of interstitial water. In addition, there results a displacement of sodium ions with consequent increased excretion of sodium chloride and water in the urine. The net result is a decrease in total body water.

A basic component of the allergic reaction, Kern points out, is œdema in the shock organ. The production of this allergic œdema involves a quantitative factor. There will be no shock, no symptoms of allergy, unless the patient is subjected to an allergenic action greater in amount than the amount of allergenic action required to produce shock, organ œdema and consequent symptoms in that particular individual. If we suppose that in addition to the allergenic impulse to œdema there appears on the scene a factor that influences water retention and tends to facilitate the production of œdema, it will enhance the effect of the allergenic action. Here also there will be no symptoms unless the combination of the additional factor and the original allergenic impulse is sufficient to carry the patient over what we may call the threshold for symptoms. Thus administration of a sodium salt may precipitate allergic symptoms in a person who might otherwise have been able to withstand an allergenic impulse that was below the symptom-threshold. It is also clear that if Kern's views are correct the administration of a potassium salt may, if the original allergenic impulse is not too great, keep the patient below the threshold for symptoms. These quantitative considerations are important in Kern's whole thesis, for they explain why the exhibition of potassium chloride is not always successful. There is no need to follow his argument further. He states that he has used potassium chloride in the treatment of patients with hay fever, perennial allergic rhinitis and asthma. He gives no figures setting out his results. He does state that by no means all, "not even a sizeable minority", were helped by potassium chloride alone. Sometimes the addition of potassium chloride administration to other types of therapy proved an advantage. Kern's impression is that in milder cases, those of patients just over the threshold of symptoms and with sensitivity that appears to be neither extensive nor intense, improvement with potassium chloride is most likely to be noted.

The views advanced by Kern are logical, and his theory explains the rather limited results that appear to be obtained with potassium chloride, given as he and others give it. Most workers will agree with his rejection of Bloom's idea that potassium plays the major role in the mechanism of allergy; most workers will also agree with Kern that it would be unwise to speculate regarding further applications of his theory. Activities should rather, as Kern holds, be turned in the direction of obtaining more facts. But if work of this kind is to be done, it must be done only by those who are prepared to be highly critical of their own observations. Above all, the work must be properly controlled. Though nothing much has been heard of Kern's ideas since he published his paper in 1940, it is to be hoped that others will try to adopt them and ascertain their worth.

[1] Readers should note that the reference given by Kern to Barker's paper is not correct. The paper to which Kern wishes attention drawn may be one by M. H. Barker and R. Robinson published in *The Journal of the American Medical Association*, Volume CXI, 1938, page 1907.

Current Comment.

BERIBERI HEART.

A REPORT which is of particular interest at the present time comes from Henry Rascoff, of Brooklyn, United States of America, who gives details of the occurrence of beriberi heart in an infant aged four months.[1] The effect of avitaminosis on the child's heart was reviewed as long ago as 1935 by I. A. Abt, of Chicago.[2] In this review is included a section on the heart in beriberi. Commenting on some work by Wenckebach, Abt remarks that when beriberi occurs in infants, it is probable that the baby acquires the disorder because the milk of the mother is deficient in vitamin *B*. In pre-war days the diet of women in certain eastern countries was known to be deficient in several vitamins, including vitamin *B*. At the present time when the normal distribution of food in many countries is disturbed as a result of war conditions, the appearance of diet deficiencies in mothers cannot be predicted. Abt also refers to observations by José Albert, of Manila, who stated that the infantile type of beriberi largely affected breast-fed infants and was a cause of high infant mortality in the Philippine Islands. He described three types, and one of these was the cardiac type, which, he held, gave rise to the severest symptoms. Abt refers to the view held by some observers that beriberi could not be regarded as responsible for a heart lesion in any adult

[1] *The Journal of the American Medical Association*, December 19, 1942.
[2] *American Journal of Diseases of Children*, August, 1935.

unless symptoms of neuritis were present. Abt then remarks that in infants only the objective symptoms can be recognized, though the intense suffering of the little patients might suggest the presence of neuritis. He describes the history of an infant eight months of age who died of a cardiac condition, and he argues that this was due to beriberi.

The infant reported by Rascoff was a white boy, born two weeks before term and of normal spontaneous delivery. The child's stay in hospital is stated to have been uneventful, but the reader is not told whether the child was fed by the breast or not. Shortly after reaching home, the infant began to vomit and diarrhœa commenced. For the following three weeks sweet and acid milk of various formulæ were given, but with little success. From this statement it may be safe to conclude that the child was artificially fed from birth. When the child was twenty-nine days old it was admitted to hospital. The vomiting and diarrhœa were controlled by the rectal and intravenous administration of 5% dextrose in an isotonic solution of sodium chloride. Dextrose and water were then given by mouth, and finally milk was added together with a preparation of maltose and dextrin. After a slight relapse parenteral feeding was again adopted and a transfusion of citrated blood was given. At this time human milk was administered. When the infant was discharged from hospital, it was taking a diet of human milk which had been boiled for thirty minutes, together with 50 milligrammes of ascorbic acid and three drops of vitamin *D* every day. At the age of four months the infant suddenly became dyspnœic and cyanotic. Examination of the chest revealed exaggerated breath sounds, but no accompaniments. The reflexes were normal and no œdema was present. General enlargement of the heart was revealed by physical and X-ray examination. It was decided that the child was suffering from the effects of a deficiency of vitamin B_1 and probably from beriberi heart. Thiamin hydrochloride was therefore given every day in six-milligramme doses. Within two weeks symptoms had disappeared and the child made uninterrupted progress. At the age of eighteen months some evidence of cardiac enlargement was still present, but at the age four years the child was in excellent physical condition and X-ray examination showed the cardiac shadow to be within normal limits.

Rascoff suggests that infants suffering from cardiac enlargement of unknown origin should be given adequate doses of thiamin hydrochloride as a therapeutic test for beriberi heart. He also thinks that when the sudden death of an infant is attributed to *status thymico-lymphaticus*, the circumstances should be investigated. The condition may be a manifestation of acute beriberi.

MYASTHENIA GRAVIS IN INFANCY AND CHILDHOOD.

Myasthenia gravis is an uncommon disease, but one which has attracted considerable interest during recent years. The reason for this lies in the dramatic though temporary relief produced by eserine or by prostigmin, and the belief that this acts by inhibiting the destruction of acetylcholine, the chemical transmitter concerned in the passage of impulses from motor nerves to muscles. There is very little evidence that the disease is familial or hereditary. However, F. L. Strickroot, R. L. Schaeffer and Howard L. Bergo[1] have recently observed a myasthenic patient throughout pregnancy, and record the birth of a child with symptoms of *myasthenia gravis*. The patient, when first seen at the age of nineteen years, complained chiefly of extreme weakness. She had had an essentially normal childhood and adolescence, but in 1937, when she was seventeen, she first noticed the onset of weakness in the knees when climbing stairs. Two years later, the patient presented the typical picture of *myasthenia gravis*. Injection of one cubic centimetre of a 1 in 2,000 solution of prostigmine methyl sulphate produced a remarkable change of facial expression, and the patient was able to walk upstairs, a thing she had not done for months. The authors believe that this confirmed their diagnosis of *myasthenia gravis*, and further confirmation was provided by the fact that great improvement was maintained for a year and a half by oral administration of 15 grains of prostigmine bromide three or four times a day. The patient then began to decrease the dose until one or two tablets daily would suffice, except for short periods when drooping of the lids, strabismus, diplopia or weakness of the arms made a temporary increase of dosage necessary. In April, 1941, she was married and in September she came for examination in the second month of pregnancy.

The effect of pregnancy on the course of *myasthenia gravis* varies greatly; in a few instances pregnancy has appeared to precipitate the illness, but more often it has coincided with a complete remission. In the present instance it became necessary to increase the dosage of the prostigmine bromide gradually until six or eight tablets daily were necessary near term. Pregnancy, labour and delivery were otherwise normal, and the baby, a girl weighing seven pounds eight ounces, was well formed and apparently normal. However, on the third day some difficulty was experienced in getting it to take its food. Next day there was a decided change; the face became mask-like, crying was almost noiseless, with no expression or movement of the facial muscles. The child appeared to be unable to suck and what little food did get into the mouth was regurgitated. A test dose of a quarter of a tablet of prostigmine bromide was administered by stomach tube with an ounce of food. The result was dramatic. Within half an hour all symptoms disappeared; the child nursed and took the bottle normally and on stimulation cried with volume and with the normal expression of a crying baby. The effect was maintained by the addition to each four-hours feed of half a teaspoonful of a mixture containing a fifteen milligramme tablet to each half ounce of water. Two days later, prostigmine bromide was discontinued for two feedings and the symptoms returned within eight hours, though in a milder degree. The baby responded as before to prostigmine, but about forty-five minutes later she suddenly turned blue and died, in spite of treatment with a Drinker respirator, prostigmine atropine and adrenal cortex extract. The diagnosis after autopsy was: (*a*) œdema, congestion and petechial hæmorrhages of the brain; (*b*) atelectasis; (*c*) diffuse cloudy swelling and congestion of the remaining organs; and (*d*) mild hypertrophy of the thymus with hyperplasia of the thymic corpuscles. The authors believe that this is the first instance to be reported in the literature of *myasthenia gravis* occurring in a newborn infant. Its occurrence is unusual in young children, but in the same issue of *The Journal of the American Medical Association* A. T. Lieberman reports a case of *myasthenia gravis* in a five year old child. The outstanding features were sudden respiratory distress, the acute, fulminating onset of the disease, a dramatic response to prostigmine, and the early age of the patient.

These case reports are of interest to the clinician in that they show him what he may expect to find among infants and older children brought to him for treatment. The more important question, however, is the nature of the myasthenic condition. In the first case the mother's disease appears to have been responsible for the baby's condition. In the second case the family history is not mentioned, but the onset was sudden and severe; the child after eight weeks in hospital was active and alert and was receiving 7·5 milligrammes of prostigmine bromide every twelve hours. Neither Lieberman nor Strickroot and his co-workers discuss the nature of the disorder, though the last-mentioned group suggest that all infants born of myasthenic mothers should be specially studied. If we agree that the illness of both children reported was true *myasthenia gravis* we have a condition which may be passed from mother to child, but may at the same time attack another child like a bolt from the blue. One point that arises is whether a woman with *myasthenia gravis* should be allowed to have children.

[1] *The Journal of the American Medical Association*, December 12, 1942.

Abstracts from Medical Literature.

OPHTHALMOLOGY.

Eye Changes in Young Diabetics.

C. S. O'BRIEN AND J. H. ALLEN (*The Journal of the American Medical Association*, September 19, 1942) discuss ocular complications of diabetes in patients aged under thirty-five years. They point out that, although such complications are believed to be extremely rare, in a study of 555 young patients suffering from diabetes, 23 were found to have pathological changes in the retina apparently due to that disease alone. There appeared to be a connexion between poor control of the diabetic state and the occurrence of retinal changes. In a further survey of 260 young diabetics, all aged under twenty-one years, 43 were found to have lens changes of the type known to occur in diabetes. The ocular changes observed included diabetic cataract, congenital lens changes (punctate opacities, Vogt's coronary cataract and other types), traumatic cataract and congenital pigment dots on the lens. The authors point out that such changes were not observed a few years ago, probably because until recently young diabetics lived for a comparatively short time. Patients now live much longer and the retinal changes have a chance to develop. Referring to changes in refraction, the authors call attention to the fact that other workers have reported transitory changes in refraction in young diabetics —the development of relative myopia during periods of poor control and of relative hyperopia during reduction of the blood sugar level with insulin treatment. In a series of twelve patients, whose ages ranged from eight to twenty-eight years, and who had previously been untreated, the authors made daily estimations of visual acuity for ten to fourteen days after the institution of insulin therapy. A relative hyperopia of 1·00 to 3·00 diopters developed within three to five days after the treatment was begun, but it disappeared within seven to ten days.

Metallic Foreign Bodies in the Eyeball and Orbit.

E. B. SPAETH (*The Journal of the American Medical Association*, October 31, 1942) discusses the extraction of magnetic and non-magnetic foreign bodies from the globe and the orbit, and presents some illustrative cases. He holds that radiography has great and important possibilities, and that it is not at present used adequately. There is a place for flat angled views and stereoscopic views. The ophthalmologist is in a better position than the radiologist to decide which type is to be used in any given case. The value of the injection of air into Tenon's capsule for the localization of intraocular foreign bodies is stressed. If pictures are taken from various angles, the relation of the foreign body particle to the capsule may be accurately determined. The procedure is wholly without danger. The author describes various types of radio-opaque fixed corneal and scleral landmarks for use in the localization of foreign bodies. Their chief value is to furnish fixed external surface landmarks, from which exact measurements can be made to permit the removal of non-magnetic foreign bodies. The great disadvantage of most such appliances is their inaccurate fit. Iodized poppyseed oil may be floated behind a Koeppe contact lens. It provides a perfect fixed radio-opaque landmark for the accurate localization of foreign bodies lying in or at the anterior chamber angle, at the root of the iris and in the ciliary body. For the removal of retrobulbar, deeply embedded, radio-opaque foreign bodies, there is no alternative to the use of the biplane fluoroscope. The second indication for its use is in the removal of an intraocular, radio-opaque, non-magnetic foreign body not attached to or in close proximity to the retina, when vitreous clarity is disturbed by hæmorrhage or exudate. In such circumstances, however, it must be realized that the use of the biplane fluoroscope may lead to grave disorganization of the retina, chorioid, vitreous or lens. The biplane fluoroscope should not be used for the removal of intraocular particles unless it is inevitable. Discussing the use of giant and hand magnets, the author states that the indications for the use of either are distinct, and the instruments are not interchangeable. The giant magnet is of diagnostic as well as of therapeutic value. Its advantage is in its increased width of magnetic field. The author discusses in some detail the use of the two types of magnet and the manner in which foreign bodies may be extracted by their aid. Finally, he refers to the ocular endoscope, especially Thorpe's model. Its use has been proved an ideal procedure for the removal of intraocular, non-magnetic foreign bodies, which are lying free within the globe, and which are not incarcerated or entangled in the retina, the chorioid or the ciliary body.

Temporary Lens Changes in Diabetic Coma and Other States of Dehydration.

R. D. LAWRENCE, W. OAKLEY AND I. C. BARNE (*The Lancet*, July 18, 1942) have found that temporary lens changes are constantly visible in diabetic coma accompanied by severe dehydration and also in states of dehydration unassociated with diabetes. The authors have recently made a practice of carrying out a routine examination of the lens in all such cases by direct ophthalmoscopy with a lens of +12 to +20 diopters; that of +15 diopters has usually given the clearest focus of the opacities. The authors have been unable to observe more accurate detail with a slit-lamp, and in only one case has it been possible to assess the subjective visual defects, since the patients are semi-conscious or unconscious. The most common change that they have found, seen against the red retinal reflex, consists of a wavy gridiron, the lines showing dark against the red background as if the capsule was wrinkled in folds. In some cases, especially during the early phase and during resolution after the intravenous administration of saline solution, no complete pattern was seen, but only an appearance of fine crinkling confined to the periphery or an odd peripheral streak. In more severe dehydration bolder streaks like water cleavages were seen, together with quadrantic patterns showing darkly against the red retinal reflex and apparently situated more deeply in the lens. In one case only was the opacity extensive enough to blot out the retinal reflex; it began at the bottom of the lens and spread upwards. The changes were not symmetrical in both eyes, but were of the same general pattern. In all cases the criteria of dehydration were a sunken facies, hæmoconcentration, a systolic blood pressure below 80 millimetres of mercury and very low eye tension. The ocular hypotension was sometimes intense; the authors point out that this shows how severely the eye suffers in diabetic coma. The lens changes seem to be directly dependent on dehydration, and they disappear when it is corrected by the administration of saline solution. They believe that the part played by such water changes in the production of permanent diabetic cataracts is important in the juvenile forms, but doubtful in the cataracts developing in older diabetics.

Ochronosis of the Sclera and Cornea Complicating Alkaptonuria.

JAMES W. SMITH (*The Journal of the American Medical Association*, December 19, 1942) presents a detailed review of the literature on alkaptonuria, bringing the total number of reported cases to 82 by the addition of 23 omitted from previous reviews and four of his own reported from the ophthalmological point of view. He points out that alkaptonuria is a fairly common disease. Endogenous alkaptonuric patients may present signs of ochronosis before the age of thirty years. The diagnostic triad of signs is (i) pigmentation of the ears and scleras, (ii) urine that darkens on exposure to the air and (iii) osteoarthritis. Ocular ochronosis was a complication in every proved case since 1910, with one exception. When slit-lamp biomicroscopic examination reveals pigment spots in the corneæ superficially near the temporal and nasal limbi, the finding is diagnostic of advanced ochronosis. Scleral ochronosis develops gradually and simultaneously with pigmentation of the ear cartilages, or it may be one of the first signs of ochronosis. When patients are examined early, careful ophthalmological examination should disclose abnormal pigmentation of the sclera or conjunctiva; pigment spots will be discovered in the corneæ of alkaptonuric patients past middle age.

Toxic Amaurosis due to Quinine.

LOUIS PELNER AND EDWARD SASKIN (*The Journal of the American Medical Association*, August 8, 1942) discuss amaurosis due to quinine, and report a case in which beneficial results were obtained by the intravenous administration of sodium nitrite solution. They point out that the severity of the symptoms may be, and frequently is, independent of the amount of quinine taken; persons who are sensitive to quinine will experience rapid and severe loss of vision after swallowing a small amount of quinine in a remedy for the common cold. Disturbances of the sense of hearing are more common than disturbances of vision. When the condition is recognized properly and measures to induce vasodilatation are rapidly employed, the tendency is

towards recovery of vision with some loss of peripheral field; however, cases of permanent blindness have been recorded. The authors discuss the divergent opinions on the ætiology of the condition—whether it is due to vascular change or nervous degeneration—and conclude that successful modern treatment with vasodilators seems to prove that the initial lesions are vascular, and that the nervous elements, though affected, cannot be irreparably injured. Treatment consists in the immediate discontinuance of the administration of quinine. Emesis and catharsis may be of value, though it has been shown that quinine appears in the urine about thirty minutes after a large dose has been taken. The prompt production of vasodilatation, either by inhalation of nitrites or by intravenous injection of sodium nitrite solution, appears to be the best treatment. Supportive stimulants, such as strychnine and digitalis, may be given if indicated. In the authors' case ethylmorphine hydrochloride was applied locally for its vasodilating effect, and vitamin *B* complex was administered on theoretical grounds for its effect in protecting nerve structures.

OTO-RHINO-LARYNGOLOGY.

Otogenic Cerebellar Abscess.

N. ASHERSON (*The Journal of Laryngology and Otology*, June, 1942) discusses the operative treatment of otogenic cerebellar abscess and the postoperative care of the patient. He insists that the operation of exposure and exploration of the cerebellum should be undertaken as soon as the diagnosis of cerebellar abscess is made. Delay, in the hope that walling-off may occur, is regarded as unjustified and dangerous. Even in the presence of coma or respiratory paralysis attempts should be made to provide drainage. Delay in actual exploration of the cerebellum may be considered if localizing symptoms are indefinite and the patient's general condition is good and stationary. Preliminary mastoidectomy with exposure of the lateral sinus and adjacent posterior-fossa dura should, however, be completed. Thereafter, in such cases, it may be wise to delay for one or two days during which a complete neurological examination should be made twice a day. The site of election for cerebellar drainage is through the petro-cerebellar (Trautmann's) triangle medial to the sigmoid sinus, which should, in the author's opinion, always be obliterated by pressure, or if thrombosed, operated upon. Complete labyrinthectomy is necessary only when empyema of the labyrinth is present. The solid angle containing the posterior semi-circular canal is gouged away, however, when the dura is exposed towards the internal auditory meatus. The dura is punctured with a wide bored needle to which a syringe for suction is attached. The cerebellum is entered in a postero-medial direction, the point being slowly advanced for a depth of up to 2·5 centimetres. A brain needle is not recommended by the author. Should puncture prove abortive, it is prudent to desist and to repeat the process in twenty-four to forty-eight hours. Should the clinical diagnosis point to a cerebellar abscess, yet puncture prove futile, the author advises incision of the dura over the anterior surface of the cerebellum. Exploration through the obliterated sigmoid sinus may form the second point of choice, especially when that vessel has been found to be thrombosed. Exposure posterior to the sinus is not commended by the author. With the finding of pus by the exploring needle, while the latter is carefully held *in situ*, the dura is incised about the point of entry of the needle and a sinus forceps inserted to enlarge the opening. A wide bore thick rubber drainage tube without side openings is then inserted gently into the abscess cavity through the dural opening. Escaping pus is removed by aspiration. The tube is then cut flush with the surface and a second larger tube is applied as a collar over the first tube. The region around this collar is then packed with "B.I.P.P." gauze and a box dressing is applied about the tube mouth and mastoid wound. Dressings are done in the operating theatre under anæsthesia by the surgeon himself. The tubes are dispensed with when symptoms and signs have subsided and the patient's improvement is maintained and there is no further pus from the tubes. The time for this to take place may vary between seven and fourteen days. Chemotherapy, blood replacement and specific bacterial antiserum are employed to assist in overcoming the infection. In successful cases coma should disappear within twenty-four to forty-eight hours, headache and vomiting should cease, a good appetite should develop and weight should be restored. Delay may be due to pocketing in the abscess cavity, meningitis or otitic hydrocephalus.

The Surgery of the Hypopharynx.

J. M. GRAHAM (*Edinburgh Medical Journal*, March, 1942) records observations on ten cases of pharyngeal diverticulum. Eight patients were males and two were females. One patient was only thirty years of age. The remainder ranged between fifty and seventy-six years. Dysphagia and regurgitation had developed gradually in most of the cases, the duration of symptoms varying in the series from one year to thirty years. Coughing and choking attacks, due to overflow from the sac into the larynx, were noticed in several cases. In one, this symptom occurred only when the patient was lying down. Others had learnt to avoid such attacks by regulating the quantity and quality of food. An obvious swelling in the neck was observed in only four instances. X-ray examination readily confirmed the diagnosis in all instances. Excepting in two of the cases in which only slight symptoms were present, opcration was performed. In four, resection by the two-stage method was carried out. In four others, owing to poor condition of the patients, diverticulopexy only was performed. The author advises preliminary diverticulopexy as a first stage in all cases to allow for thorough emptying and shrinkage of the sac and sealing of the lymphatics and fascial spaces in the neck. Ten to fourteen days later the mucosal lining is resected by a comparatively easy stripping from the submucosal tissues. The stump is closed by sutures and the wound is allowed to heal with a rubber-tissue drain until ready to close. All of the patients in this series recovered from the operation and had very satisfactory results. In one who underwent diverticulopexy only, carcinoma developed in the pouch six years later. Summing up case reports in the literature with his own series, the author records only two deaths among 181 patients. The author also reports a series of thirty cases of post-cricoid carcinoma. All except two of the patients were women and more than half of these were below the age of fifty. The symptoms developed gradually in many of the cases with slight dysphagia or abnormal sensation on deglutition. In others, obstruction appeared suddenly when a piece of solid food lodged in the throat. Pain referred to the ears, accumulation of mucus and a tendency to coughing were other symptoms noted. In some instances the appearance of an enlarged gland was the first indication of the disease. Direct larygoscopy and œsophagoscopy and X-ray examination with a barium bolus or plain X-ray examination with the patient in the lateral position were employed to confirm the diagnosis. Four patients in the series gave a long history of trouble with deglutition, suggesting the pre-existence of some such condition as the Plummer-Vinson syndrome. Six patients of the series were treated by irradiation without success. A radical excision of the post-cricoid area was performed in 12 of the 30 cases in the author's series. In the earlier cases no attempt was made to reconstruct the gullet, the open end of the œsophagus merely being implanted in the neck. Of five patients treated in this way, four lived from six to eighteen months and each died with recurrence. One has lived for over 24 years. In seven cases lateral transthyreoid pharyngotomy was performed with provision of a skin flap for reconstruction of the pharynx, after Trotter's method. Two of the patients died after four days; two survived for a few months. Three of the patients lived and were able to swallow normally, one of these died after eighteen months with widespread metastases, one died suddenly of an unrelated cause and one has been well for fifteen years.

Treatment of Carcinoma of the Larynx by Chaoul "Contact" X-Radiation.

V. LAMBERT AND F. A. WATSON (*The Journal of Laryngology and Otology*, April, 1942) make a preliminary report on a method devised to avoid secondary tissue reactions, such as cartilage necrosis, while permitting treatment with one application of X rays. They record promising results after treatment of eleven patients. A subperichondrial resection of the whole of one thyreoid ala is carried out. The X rays are then accurately directed to the involved area through the wound, a circular field of 4·5 centimetres' diameter being provided at a focal-skin distance of 5 centimetres. Treatment lasts for slightly more than half an hour and the wound is then closed without drainage. A local mucosal reaction occurs within the larynx after a week, but there is no embarrassment of breathing or swallowing. Skin reactions are entirely avoided. The authors point out that it is too soon to make any final claims of cure.

Public Health.

PARLIAMENTARY JOINT COMMITTEE ON SOCIAL SECURITY.

THE Parliamentary Joint Committee on Social Security was appointed "to inquire into and from time to time report upon ways and means of improving social and living conditions of the people of Australia and of rectifying anomalies in existing legislation". The personnel of the committee is as follows: Mr. H. C. Barnard (Chairman), Senator Cooper (Deputy Chairman), Senator Arnold, Mr. Maurice Blackburn, Colonel R. S. Ryan and the Honourable J. A. Perkins.

In the present issue we publish a summary of evidence recently given before the committee by Sir Charles Blackburn, of Sydney.

SIR CHARLES BICKERTON BLACKBURN, being sworn, presented the following statement to the committee.

In preparing the brief statement which I wish to submit to the committee, it has been my purpose to indicate my belief that the matter most urgently needing the attention of those directing the medical and health services of the people of Australia is the gross inequality in the opportunities for attaining mental and physical health available to Australian children.

My conception of the medical and health services required by the people of Australia rather takes the form of a double programme, the two parts of which, despite some duplication of items, can be profitably discussed separately.

On the one side of the programme I would place the various services required by the adult section of the community, and on the other the requirements of those in the pre-adult period of life. I propose first to discuss the last-mentioned section, not only because the child precedes the man, but because it is obvious that the more success the service to this group attains, the less will be the demands made upon that concerned with the adults.

Though this is not strictly included in the terms of reference, the first item I would set down on this list is the paramount need for taking steps to ensure that there will be a rapid increase in the number of those requiring the service.

While I believe that the Commonwealth should provide every possible facility to encourage healthy young people to marry while they are still young and should be prepared to make financial assistance no less easily available than it is to the farmer who provides us with wheat and wool, it is also the concern of the health service to see that family life is made more attractive.

Such matters come within its ambit as seriously facing the housing problem in order to secure that attractive modern homes are available for those willing to accept parenthood. Much could also be done by establishing a house service guild of people available to take charge of children while parents have a holiday, and during sickness or even to enable them regularly to spend an evening away from the home.

Ante-natal care should, I think, occupy second place, as it is clearly of the utmost importance to the nation that its young citizens should start life as healthy as it is possible for modern science to secure.

Maternal welfare has an important place in the scheme, not only because it is obviously desirable that the loss of a mother or a child should be as rare an event as possible, but also because of the psychic value of a mother approaching what is really a natural incident with a minimum degree of anxiety about the outcome.

I feel confident that the best results will be obtained if throughout the period of pregnancy the mother is under the supervision of a doctor whom she trusts implicitly and regards as a part of her social life.

Other items appearing on the list will be adequate provision of baby clinics supervised by doctors, crèches, extension of kindergartens, full use of methods of immunization against infective diseases, protection from tuberculosis by better provision of accommodation for those infected with the disease during the infective stage, and liberal financial assistance for the family in the absence of the bread-winner; regular inspection of school children, with follow-up to the home in appropriate cases; attention to the physical fitness of growing children by concentration on nutrition and suitable physical exercises; encouragement of the community spirit by taking part in summer camps, joining Boy Scouts, Girl Guides and other groups.

In this brief statement I have made no reference to the question of medical service for illness that may occur during childhood, as that is one of the aspects in which the two programmes overlap and will be covered by a general scheme of medical service.

I am prepared to answer such questions in regard to a medical service to adults as I am able to do, but am not submitting any statement. I may, however, state in a general way that I am of the opinion that the young citizen whose life has been cared for and guided on the above lines should regard it as his duty, on assuming full citizenship, to accept a considerable degree of responsibility for the care of his own health and welfare. He might well be expected to set apart some of his earnings for such purposes as insurance against sickness, contributing to hospital schemes, provision of an adequate pension for his old age, and should not expect that the State will do more than come to his aid in unforeseen emergencies, and this, I am of the opinion, it should be prepared to do.

In reply to Mr. Perkins, Sir Charles Blackburn said that there was tremendous room for improvement in all the matters to which he had referred in his statement. The recruiting for the war in itself had shown that there was an enormous number of children that would have been much better men had they been better looked after, and one had only to see those who had been well enough to be accepted for service and had gone into training to notice the improvement in them through proper nutrition and proper training even at this late stage, but an enormous number never had a chance. Of course, in the cities the child on the whole was worse off than in less crowded areas, but Sir Charles Blackburn's own feeling was that the State should frankly accept the position of guardian of the child. The State was the guardian of every child born, but so far it had not recognized the fact. The State should go so far as to see that the children were followed up in their homes, and if it found that the parents were neglecting them for any reason their condition should be brought to the notice of the authorities, even to the extent of taking them away from their parents. After all, a child was only under his parents until he was sixteen; after that he was a citizen of the State. A tremendous lot of the trouble was due to the ignorance and foolishness of the parents, not only in regard to food, but also in the foolish way that parents brought up children. They often did not take care of them at all, or took too much care of them. In his experience a very large number of the men who had been found psychically unsuitable for the Army had been only children. He could not compare the youth of this community with those of Great Britain and America, but he could with those of Russia. Sir Charles Blackburn had been in Russia and had seen what they did to the children there. He was there in 1937 and had an opportunity of a long interview with the Commissar of Health and his deputy. He saw a good many of their clinics, but he was speaking now particularly about the children. Very large areas were set apart in all the towns of the Soviet, and these they called "Gardens of Culture". In them they had playgrounds for the children, but they also had people who took charge of the children. One went in there and found a big hall where one lot of little tots was being taught to sew, another to make toy aeroplanes, and another how to use machines. Quite obviously throughout their childhood they were the charge of the State, which recognized that they were its future citizens and took the responsibility of looking after them, which Australians did not. He noticed that these Russian children looked a very healthy lot, and he could imagine from a general view of them that the authorities there did not have to turn down so many for military service as it was necessary to do in Australia. He had read all the schemes which had been put forward for a national medical service in Australia. He would say that certainly a considerable improvement could be made in Australia's medical service, but he did not feel that there was really any justification for the belief that the whole thing should be taken and torn to pieces to make a new system. He felt that on the present methods, with certain improvements, a very good system could be developed without an entirely new scheme being made. The hospitals in this country were up to a very high standard, but there were not enough of them and they had not enough beds. He would think that more hospitals were required. It would be to the interest of the community if there were more medium-sized hospitals where patients could be treated by their own doctors, rather than being taken away from their doctors, as they mostly were now, and placed in somebody else's care. The first thing to do so far as the health of the children was concerned, was to educate the parents. If money was to be available—unless, of course, there was unlimited money—the first use that should be made of it should be to try to see that up

to the time the youngster was seventeen or eighteen years old he or she had had a fair chance to be a healthy boy or girl, even to the extent of interfering with their family home life if necessary. His view was that at school at the present time far too much attention was given to the ordinary "3 R's" and not enough to the "H", that the schools ought to give far more attention to the child's health and make him understand matters concerned with his health and also with regard to his future place in the community, to make him understand that he was going through a novitiate towards becoming a unit in the community. The changes likely to occur post-war were a subject upon which every member of the community should have a reasoned opinion. The war had shown that a soldier was a much improved man when he was properly fed and trained. That could be seen everywhere. He understood that there was an increase in venereal disease. He did not treat it himself, but from what had been said by specialists in that line there was no reason to doubt that it was on the increase. That was certainly something that should be grappled with. If all the unfortunate young girls who were ruining their lives had been better brought up and better educated they would not have done what they had done. Quite apart from the fact that they had venereal disease, it was a tragedy to think that these children were done for. Most of them who had been running round with these men and getting this disease would never marry, nobody would want them, and at the early age of sixteen they were ruining their lives. A child of sixteen who had not been properly taught knew nothing, she thought it a fine thing to go out with a soldier who was prepared to give her a good time, and he did not care so long as he got what he wanted. It was possible by modern methods to cure the disease, but an enormous number of the girls that had it were sterile afterwards. He had given a lot of thought to the question of how to check the disease, but it was extraordinarily difficult to know what to suggest. One saw a lot of these soldiers walking along with quite small girls, one knew what was going to happen, but the police could not interfere until it had happened. Sir Charles Blackburn did not know what power one could have to interfere because any one of those soldiers might be with his own young sister. The disease was notifiable in this sense, that if an individual was found to have it he or she could be kept under control until cured. If a doctor saw a patient with venereal disease he had to notify the Health Department that he had seen a patient and warn the patient that if he did not continue with him or at a clinic until he was cured he would give the name.

Sir Charles Blackburn knew the medical scheme which had been adopted in New Zealand. He thought it was a fairly good one, but it was complicated. It was a double scheme, with the two parts running side by side. He doubted whether it was not a serious waste of money because it was costing the Government of New Zealand a great deal of money and he thought that a good citizen of any State should be prepared to insure himself against sickness. In Russia an old-age pension was paid for by the man and the State. It is not given to a man just because he was a sick man or an old one. He paid in right through his life a share of his income towards his old-age pension, and when he reached a certain age he was entitled to it no matter what other money he had and he was not even compelled to leave off work. If he wanted to continue to work he could do so. The opinion in Russia was that because a man was 65 years of age it was not necessary to lose his services, and if he was healthy he was allowed to continue. Plenty of people at 65 were capable of continuing. The idea of having to take an old-age pension and not work was absurd. Citizens should be brought up to the idea that they had to do something for themselves, and not to have everything done for them by the State.

The facilities for dealing with tuberculosis were most inadequate in Australia in many ways, because there was not nearly enough accommodation available to send people to. If Sir Charles Blackburn saw a patient with early tuberculosis today, it would probably be three or four months before he could get somewhere where he could be looked after, but the disease would be going on all the time and he would be liable to infect his family and others around him. Immediately a man or woman was diagnosed as tuberculous he or she should be taken away at once from their homes. The vast majority of people who contracted tuberculosis got well. Thousands had the scars of tuberculosis and had never known that they had it. It would be an excellent policy to compel everyone with tuberculosis to go to a sanatorium and for the State to look after their families while they were there. If they had not enough sense to realize that they were distributing germs to their families and spreading the disease they should be compelled to enter an institution for treatment, but they should be able to go in with the feeling that their family would be as well looked after as it was before.

In reply to Senator Arnold, Sir Charles Blackburn said that the X-ray films now being taken of the chests of many people were fairly reliable, not always, but in a great many cases, as showing whether a person had had tuberculosis or not, but there was considerable doubt at the present time whether they showed that he actually had the disease. That was a matter which caused great difficulty because even the most expert radiologists differed. Speaking as a physician, Sir Charles Blackburn said that he had had two or three different opinions expressed by radiologists as to whether or not a lesion was active. When one could not get any other evidence that there was activity, and one tried to find out from radiologists whether there was, then they differed. Of course, he did not blame them because they were merely looking at a photograph of a shadow. To try to interpret whether that was the shadow of something that had happened and healed, or something that was still active, was extremely difficult, and at the present moment this was causing a great deal of anxiety, because many people who yesterday thought themselves perfectly well, and were photographed today, could not be given a clear-cut opinion as to whether they were suffering from the disease or not, and so became anxious and worried. Of course, if they had had tuberculosis and were now well they were probably better off than a lot of others because the man who had had a tuberculous lesion possessed a considerable degree of immunity. That was the reason why in a hospital doctors preferred to put the nurses who reacted to a test showing that they had been tuberculous, or who had a scar, to look after tuberculous patients, rather than nurses who showed no such sign. It could fairly safely be said that the photograph revealed whether or not a person had had tuberculosis or had it, because it showed the scar. Of course, he had seen mistakes made as to the cause of the scar. For instance the hydatid scar had been mistaken for a tuberculous scar, but in 19 cases out of 20, judging by the position, one could tell whether the lesion had been tuberculous. So on the whole it was a pretty fair bet that they were right with regard to the scar, although one could not say that it was 100% certain. It would perhaps be a good thing and beneficial to the community if photographs were taken of the chests of the whole community. It would cut both ways, because a lot of anxiety would be engendered in people who today were free from anxiety and had no reason for it. On the other hand some people would be found who would be more readily cured before the disease went any further. The same thing applied there as with the public campaign about the early notification of cancer. Many people who had a cancer phobia were frightened, but others in the early stage might be picked up and cured. By a complete system of examination such as was suggested, the person with active tuberculosis would be picked out, prevented from spreading infection, and saved, and on the whole the advantages would outweigh the disadvantages. Some people who had been found to have a scar had become nervous and troubled and were constantly running to the doctor to see if they were all right, but those cases could not be avoided. If everyone were examined and the known cases were segregated it would have a marked effect in decreasing tuberculosis in Australia. That would have to go on side by side with taking care of those that were already known. Of course, the fewer germs that were distributed about in the community the better. Sir Charles Blackburn did not suppose that anybody in the metropolis at the present time went two months without inhaling some tuberculosis germs. Those who were knocking about in the streets a good deal would be lucky if they went a month without inhaling them. The vast majority of people were fairly immune to tuberculosis, and that was one way in which they became immune. The improvement of nutrition of the people as a whole would also help to make them immune, but the only way known at present to stamp out the disease of tuberculosis was to prevent the germs being let loose on the community and getting into people. In the case of certain diseases immunity might be produced by injection. There was a type of injection being used on the Continent for tuberculosis to a moderate extent which was believed to produce an immunity and had been said to do so, but it was not a perfectly safe method at the present time and it had certain disadvantages, so that it had not been adopted on a large scale like immunization for diphtheria. If the whole community could be made immune to tuberculosis that would do it, because the germs would not have any hosts,

but at the present stage of knowledge the only way was to prevent the germs from being distributed throughout the community. At the present time particularly, the numbers of people attending out-patient departments at hospitals were unduly great. There was a shortage of doctors and more people went there than should go. One disadvantage at an out-patient department was the extraordinary difficulty of getting rid of an out-patient of the more or less chronic type. There was no question that once a person became an out-patient at a hospital, it was a sort of outing to go there and it was hard to satisfy him that he was really well. He liked to go out there and chat with his friends. There was a good number of people cluttering up the out-patient department who were not really ill, but it was hard to say that they were 100% well, and it was very difficult to get rid of them. In reply to Mr. Perkins, Sir Charles Blackburn said that it could be held that to a certain extent they enjoyed their bad health.

In reply to Senator Arnold, Sir Charles Blackburn said that in normal times the difficulty about an out-patient department was that a very large number attended and consequently a good deal of time was wasted waiting for their turns, and yet it was impossible to have a big enough number of doctors to treat them at once or to provide a big enough area to do so if enough doctors could be got. In Russia they had got over the difficulty to some extent by not having any out-patients at any hospitals. They had clinics something after the type suggested by the Medical Research Council in its scheme. The hospitals were so arranged that any patients who went to them went to bed there and did not attend there for any other purpose. When a patient left the hospital he went back to a clinic, and the clinics that he saw there were magnificent. He had never seen anything better than some of those in Moscow and Kharkov. They were complete in every possible way, and they had every kind of facility there. If a patient went to a physician with something wrong gynæcologically, there was the gynæcologist there for her to see, and the same with patients requiring X-ray examination or those who had to see the pathologist. These clinics were run like Australian out-patient departments, except that they were entirely separate and they had a very good system that to a certain extent got over the difficulty which Sir Charles Blackburn thought was a very real one, although he knew that some people regarded it as a bogy, and that was that the connexion between the patient and the doctor was more or less preserved. That was to say, the clinics were connected with various industries. There was a large one connected with the heavy industries, another with the textile industries and so on, and the whole family of these people went to the same clinic and a certain relationship was kept up between the doctor and the patient. They also had a very good system that no hurry was allowed. The worst thing one could do if one was a physician was to see more than three people in an hour or, if one was a surgeon, more than four people. The number that one could see was quite definitely laid down and one was not allowed to hurry. The standard of medicine in Russia was very good, and was improving a great deal. Before the Soviet was established there was a very limited number of doctors, not nearly enough. They told Sir Charles Blackburn that they did not think there were enough now. That was one of the reasons why they were putting students through the university in large numbers, but the training they got at the university was of a very high standard. In a sense a clinic was really a group practice. Private practice did not exist in Russia, practically speaking, because everyone was on a salary. Sir Charles Blackburn had asked the Commissar of Health whether there was not any demand for private practice by the people. He said that there was a fair demand for it and that a good many of people would like it, but the doctors did not like it because the taxation rate on private earnings was so great that it practically took away all that they earned. The people wanted the doctors to go, but the doctors did not want to go. The doctors were allowed to do private practice, but there was no particular incentive to them to do it. From what Sir Charles Blackburn saw there he would not say that there was any great loss of incentive or efficiency on the part of medical men under the Russian system. The men were very keen, and they were keen because keenness helped them to get on and obtain higher salaries. The popular idea that everybody in Russia was on the same salary was entirely erroneous. He remembered asking the Commissar of Health what salary was given to the student when he graduated from the university and went out to do work at a clinic or a sanatorium, or to some special job like pædiatrics. The Commissar said that it varied, when the student started, somewhere between 250 to 350 roubles a month, and he added: "We decide that by the way he passes his examinations." Sir Charles Blackburn had not known that they differentiated so early, but that was apparently one of the reasons why there was great keenness. Every three years they had three months at the State's expense for post-graduate work, and if during the preceding three years they had shown special aptitude and keenness to follow up some particular line of work, and they were recommended by the head of the clinic, they were given six months' post-graduate training and allowed to become specialists in the line that they had chosen. There was therefore an incentive to get on. It was not a mere matter of routine to do so many years as a junior and then become a senior. A whole system of rewards had been introduced.

It would be a good thing to have wards at Australian hospitals to treat the incipient stages of mental disorders, but those wards should be kept in a separate building, something after the style of the psychiatric clinic that had formerly been in vogue at the Royal Prince Alfred Hospital. The building had been taken over by the Americans at present for war purposes, but it had served a very good purpose. It was difficult to have mental patients too close to other patients. With regard to the care of mothers, he thought every mother before and after confinement should be free from financial worry. She should be quite comfortable in every way. Sir Charles Blackburn was not prepared to say whether it was desirable to make a routine payment to every mother, whether wealthy or otherwise, but no mother who was about to have a child should have any mental anxiety. In his statement Sir Charles Blackburn had suggested having some sort of house service guild, with a number of women available to go to these places. Quite apart from the case of the mother who was about to have a child, there would be more women willing to have children if they did not have this anxiety about looking after them. Sir Charles Blackburn would leave it to the obstetric specialist to decide how soon before or after the birth the State should assume some responsibility. How long before would depend almost entirely on the patient herself. Childbirth was a natural process, and many women went about their work and looked after their household in a perfectly normal way up to the very day of the birth of the child. The service he suggested should be available in the event of the doctor saying that it was necessary; for instance, if he said that the patient should have a rest; the doctor could then decide whether it should be three weeks or a week or a month. That was why he had said that every woman from the time she knew that she was pregnant should be under medical supervision. That was one reason why he would like to see the family doctor continue because he was the doctor whom the patient knew and who really became a part of her social life. In his work as a general physician, if he found that a patient needed a specialist and could not pay his fee he generally sent the patient to a hospital. Very often the patient had to wait, but it all depended on what sort of specialist he required. In his own particular work most of the patients could afford to pay a specialist's fee to get an opinion. The fees which were most difficult to pay were X-ray fees and the patients could get an X-ray examination sooner or later in a hospital. That was one of the things which were most needed. Sir Charles Blackburn did not think that the public was badly served in regard to the family doctor, and the service that they got in that way. That part of it he thought could be left alone, unless there was unlimited money to spend, because he did not think the public wanted a universal national salaried medical service. He had asked a lot of people, and he thought that this system of having a nationalized medical service in the sense of having everybody brought under it was rather a political creed than a national need. A lot of people said that they would like to have X-ray examinations and other things, but when he asked people who lived at Marrickville or Haberfield how they would like to go to a clinic at Ashfield, they said that they would not go. They had grown up with a system in which they had the doctor almost next door and they would like to continue that way. They would certainly dislike having to go a long distance to a clinic. To many of them it would be a day's journey. The clinics under the National Health and Medical Research Council's scheme would be just like the out-patient departments—people would be waiting around all day, especially if the staffs were like present-day staffs, and if bigger staffs were wanted the doctors would not be available. If a mother had to take a sick baby from Marrickville to the clinic at Ashfield, who was going to look after the house while she was away? Sir Charles Blackburn did not think that it was necessary at

this stage to deal with that part of it, but a lot could be done in getting better hospital facilities and some system in which a man who could not afford to pay full fees could pay something. What happened was that if a specialist was needed and the case was urgent, the patient could get the attention. If a doctor telephoned to Sir Charles Blackburn and said: "I have a patient who cannot afford to pay, will you come out?", he went out. He was not exceptional, because everybody did it, but there should be a system by which patients would feel that they were not getting individual charity from the doctor. They should feel that there was a service, and that the doctor was being paid. The public did not like the idea that a doctor was not getting a financial return for his services, and some system should be evolved by which the doctor could be paid even if the patients could not afford to pay. There should certainly not be all the present delay in getting an X-ray picture taken and seeing the result. If it was possible that a man had an internal growth, they should be able to get the X-ray photograph next day. Sir Charles Blackburn did not think there was any need to interfere with the present state of affairs by dragging in a doctor who was in general practice and was in touch with his patients. There was, however, a great need for some national system on the specialist side. He did not suggest that it should all be done through the hospitals. Some of the present systems of group practice were a very good way. It would be possible to have a team of specialists willing to act on a roster in a proposed medical scheme, as outlined in the British Medical Association scheme, just as the specialists did now in obstetrics. They could be either on a salary or it could be arranged that the patients in many cases should pay a modified fee. If they could not pay, the Government could help, as in the New Zealand system. There was no necessity to introduce the salaried system in that case because a great many patients were willing to pay a little who could not afford to pay the ordinary fee charged by a senior specialist, which he was entitled to charge, if he could get it, because of the special nature of his work and the years he had spent on it. Sir Charles Blackburn did not think there was any reason to say that a man should not get his fee if he could get it, but most specialists would be quite prepared to act on such a roster, and a scale could be fixed by which the patient could pay as much as he could afford, and if he could not afford to pay anything, then, as in New Zealand, the Government could help. The specialist could agree or not to act on the roster, but if he came onto the roster, supposing it was a specialist service for which he usually received five guineas, he would agree to receive, say, two guineas. Then in all cases in which his services were required he would have that fee of two guineas. Many people would be willing and able to pay the two guineas who could not pay five guineas. If they could pay two guineas there was no reason why they should not, and no reason why the taxpayer should pay it for them. Sir Charles Blackburn said that as a taxpayer. On the other hand he did not see why the taxpayer should not pay the two guineas if the patient could not afford to pay it. At this juncture, when people had not got unlimited money, Sir Charles Blackburn felt as a taxpayer that a better use could be made of what was available to spend than by putting everybody on the scheme. No specialist would object to such a scheme so long as he was not asked to attend people who could well afford to pay. Some people did exploit public hospitals now, but those were very minor incidents and it was extraordinary how honest the bulk of the people were. Since people had been earning more money after the outbreak of the war, they wanted to pay for these things, and the heaviest call in Sydney was on the intermediate hospitals, because the majority of people were honest and wanted to pay. There was no widespread public demand for a free medical service. That, Sir Charles Blackburn had said, was a sort of political creed. The idea had grown up that a widespread national service was needed by the community, and there it was.

The provision of post-graduate study was not a haphazard business with the medical profession in New South Wales. It was part of the functions of the University. As Chancellor he had had a good deal to do with getting it included as a university function. There was a committee that ran the post-graduate service, and that was a committee of the University. The war had rather interfered with its activities, particularly owing to the fact that the Prince Henry Hospital, which had been the post-graduate hospital, had been taken over by the military and the university committee was at a loss to determine where to settle. Of course, there was not the same demand now for post-graduate courses, because not so many doctors could give the time, but post-graduate work was still going on.

In reply to Senator Cooper, Sir Charles Blackburn said that it might be quite a good idea to have a medical overhaul of people every so many years. He supposed it could be done with children. The more they were looked at, the better. In America the bigger insurance offices would not take one for insurance unless one signed a paper agreeing to be examined at their expense without any extra fee every year. It would be more important to introduce a system whereby whenever a child came to school and did not seem well, someone had the right to send a nurse or somebody else out to its home to find out why. At present all that was done was to send a note to the parents advising them the child should be attended to. That was a case in which the State, as the guardian of every child that was born, should take to itself authority to see that that child had a fair run. If the child was not properly looked after at home it should be, and if the conditions at home were bad and could not be improved the child should be taken away. He knew that that proposal interfered with the so-called liberty of the subject from the point of view of politics, but from the point of view of the doctor the subject of most interest was not the last generation but the present one. The person that one was interfering with had had his time, but the child had to have his innings and would not have it or be properly looked after unless the State did interfere. The State should take to itself authority to see whether there was any reason why a child at a kindergarten, crèche or school was not well. A tremendous amount of delinquency and difficulty among children was entirely due to the lack of a proper home and family life. Many homes were quite unsuitable for children and the children should be taken away from them. If early examination was made disease would probably not be found, but malnutrition would be found or nervousness caused by the child being frightened by its home surroundings; but it was no good finding out those things unless one took authority to correct them. An early examination of the adult often revealed early increase in blood pressure or early kidney disease or the beginnings of a growth. These things were not likely to be found in the child. Most children's illnesses were acute and were brought under the notice of the doctor. If the children were seen in the intervals they would not be found to be ill, but many would be found underfed, undersized or nervous. If one had not taken power to go into the home and put all that right the examination would be futile. That was a matter which should be attended to immediately, as the examination of recruits in this war had shown. Sir Charles Blackburn did not think that there was a general tendency on the part of the people to use hospitals instead of being attended to at home. It was very hard to get into hospitals now, and most of those who got in needed hospital treatment. He personally held the view that hospital treatment in the case of a very large number of people would be an advantage more often than not, because of the difficulties of treating people at home. As an example, a mother who ought to be in bed got up to look after the children and the home. At present hospital accommodation was short, although he had heard that it was not nearly so short now in the big public hospitals, on account of the number of people wanting to go to intermediate hospitals. He understood that at the Prince Henry Hospital, of the committee of which he was a member, the beds available to the public were not so much in demand as they were.

In reply to Mr. Perkins, Sir Charles Blackburn said that the distance from town might have something to do with that, but a little while ago the Prince Henry Hospital was a refuge for all those who could not get into the metropolitan hospitals. The fact that its beds available to the public were not so much in demand was an indirect proof that the public hospitals were not so rushed.

In reply to Senator Cooper, Sir Charles Blackburn said that there was a great need for convalescent hospitals. They went in for those very largely in Russia. The sanatorium system in that country was carried out on an enormous scale. They sent there not only people who were just tired and wanted a rest, but they got patients in an early stage of convalescence away from the other hospitals to a very large extent. That eased the situation, and these places were much better to convalesce in. A public hospital had an atmosphere of ill health about it that affected people psychically, particularly those in the army. If a soldier had to go to bed it made him feel that he was a much sicker man that if he were in private life. It would be a great advantage if patients who went into hospital could more readily be sent off to some institution of the sanatorium type—some place in which to convalesce. It would reduce the cost, because these places could be run much more cheaply, as not nearly the same amount of staff was

required. He had always thought that 700 beds was a good size for a big public hospital, but he had been astounded in America to find that the Cook County Hospital had, he thought, 3,600 beds. It was an enormous place, but it seemed to be run very well. The general view of people concerned with hospital administration appeared to be that about 600 or 700 beds was the most convenient size, but he could not attempt to give an expert opinion.

A very good national benefit scheme for hospitals existed in New South Wales. It sounded as if a Commonwealth scheme of a benefit type would be an advantage, instead of each State or part of a State having a different way of running its hospitals and its benefit schemes, but Sir Charles Blackburn supposed it would be much more expensive to run, as it would mean introducing a big department. The scheme was run at present in New South Wales very economically. Theoretically it would be better to have a uniform standard and it might be a good idea to get everybody into it. The scheme in New South Wales was purely voluntary, it worked extraordinarily well, and produced a large amount of money. It would be an advantage if everybody in the Commonwealth could be covered by it. He had not seriously thought out the idea of a general Commonwealth scheme, but it seemed reasonable.

The vast majority of people did not need to see a specialist, but if a patient required a special opinion from a surgeon or physician the fee was considerably larger than the ordinary fee of a general practitioner. The patient might have to have an X-ray examination and then need a surgical opinion as to what should be done, and he might also require to have his blood examined. All that was the part which, Sir Charles Blackburn thought, it was very important to make as easy for the patient as possible. He would not say that X-ray equipment was unnecessarily duplicated at present. There were seven or eight specialists in Sydney working hard all day on X-ray work outside the general hospitals, and the general hospitals were going all day. There was room for even more equipment. The people who were waiting were people who could not afford to have the X-ray examinations made privately. There was a greater tendency each year to use this specialist service, a growing tendency to try more and more to establish an earlier diagnosis of disease. Sir Charles Blackburn did not think there was any appreciable abuse of public hospitals. He did not believe it would be possible to find one in twenty people who, if they knew they wanted an X-ray examination, would not have it done privately. They often got it done at a reduced fee. The ordinary fee was by no means unreasonable in view of the extremely costly nature of the plant used. When he spoke of a reduced fee he meant a fee that the patient could pay. There was less tendency for patients to come from the country to the city since the base hospitals had been instituted. Patients would still come in to see a particular doctor. The psychic effect of the individual doctor had a tremendous influence, and there was no doubt that patients would come from all parts of the State and other States to see a doctor because they thought they would get better if they saw him. They might not be any better after having seen him, but they often did get better, and even if he told them that the case was incurable, they were satisfied to know it from him. There was no illness in which the psychological aspect did not play a part. The specialist service in the base hospitals was, he thought, as good as in Sydney. Nearly every hospital in the country had an X-ray plant, and he had seen quite good work done by family doctors who had had no special training in the use of X-ray apparatus. It was hard to say whether after the war the number of doctors in proportion to population would have to be increased on account of people becoming more hospital-minded. A good deal depended on what the wastage of doctors would be before the war was finished. There was a big strain on the doctors now both in the war and in general practice, many had lost their lives at the front, and there was quite likely to be a good deal of breakdown in health among those attending the civilian population now, but judging from the number going through the universities to make up for the wastage, and the increased numbers that had been going through since the war began, Sir Charles Blackburn would imagine that they would not be far short of the needs of the community when all the doctors were back again. No definite standard had been fixed, but it was calculated that about 1,500 patients would keep a doctor. Of course, far bigger figures were being done now, with doctors trying to attend to 3,000 or 4,000 people. The present teaching schools at the universities probably could not take any more pupils than they had at present. They had 248 at the University of Sydney, which was as many as they could teach and accommodate. Probably very soon after the war the numbers would fall, as they did after the last war. Just after the last war there was an immediate increased, but after two or three years there was a very marked fall. The law of supply and demand worked pretty well in the universities. A rumour went round that many doctors were likely to be wanted, and there was a rush of students. Then there was another rumour that there were too many doctors and the number of medical students fell off.

In reply to the Chairman, Sir Charles Blackburn said that in some ways the Russian system of out-patient clinics separate from hospitals was an improvement on the Australian system. It would be an enormous expense to introduce it here. The reason it grew up in Russia was that the Soviet was building anew. The whole hospital system was very poor and unsatisfactory in pre-Soviet days, and when they were starting off afresh it was a good idea to keep the two things separate. The reason why the out-patient departments had grown up around the hospitals in this country was that the hospitals had all the facilities for the work. It would entail great expense to build up clinics separately from the hospitals, but once it was done it would be an excellent scheme and save the hospitals from being cluttered up by these out-patients. One could say that at the out-patient departments at the hospitals now they had a separate clinic system with provision for consultation and specialist treatment. In certain localities where the patients were a long way away from the hospitals and there were no easy facilities for getting to the out-patient departments, something of the type of those clinics would be of great value.

Tuberculosis should be a notifiable disease in all States. As to whether there should be a uniform system for the Commonwealth, speaking generally, he did not like to answer questions which were more or less political, but, so far as he could see, the more certain it was that it would be done and that there would be uniformity, the better it would be in a general way to have Commonwealth control, because with independent State controls one State might not have as satisfactory regulations as the others. If it was decided by discussion between the Federal and State health officers, a satisfactory scheme would be more likely to be evolved. He felt very strongly that there was need for an improved medical service, including specialist service, in the remoter areas of the country. That would have to be done there either by subsidy or by salary. He was not averse to the idea of a salary as a salary, but he thought that the idea of introducing a salaried service for all the general practitioners who were now working would be uneconomical and would involve the patients having to go to a clinic instead of to the doctor next door, which would be an unsatisfactory arrangement for the patients. There were certain circumstances in which a public salaried service, especially in remote country areas such as were referred to, would be desirable. Sir Charles Blackburn preferred the subsidy system because under a salaried system a large number of people who could afford to pay for a doctor would not pay, and he did not see why they should not. In the Emergency Medical Service they had to pay if they could. The doctor was sent up on salary, but the patient was booked for a fee and the Government collected it. Under a subsidy system, whatever the doctor made short of a given amount was made up by subsidy. The other way achieved the same end, but he preferred the subsidy because he thought that every member of the community had some responsibility for his own health and if he could pay a reasonable fee he should do so. Sir Charles Blackburn knew something about the salaried service established in Tasmania. He understood it was for the sort of district that he had been speaking of and he had no doubt that it worked very well. It was more or less a political question whether there should be a salaried service or a subsidy, but, speaking as a member of the community, his idea was to make every citizen feel some sense of responsibility. With regard to private hospitals, he understood that some existing hospitals were not up to the requisite standard, but he did not see many of them except when he saw an occasional patient in consultation. He sent his patients to the large hospitals. A good many of the private hospitals were very well run. The State health authorities supervised them fairly well. In regard to some centralized body to control all hospitals in the Commonwealth and to see that they reached a certain standard, New South Wales had a Hospitals Commission and Victoria had a Charities Board. Each of these was responsible to its State Government for the hospitals. Each was a very capable body and would do better if it had more money. Their main difficulty was that they could not help the

hospitals enough because of finance. The whole question was whether if there was a Commonwealth Board it would have to delegate the job to a number of State Boards. If the Commonwealth took it over and made unlimited money available, that would be better than State Boards with only limited money. The Commission in New South Wales was keen and anxious to do everything and its only deficiency was that of funds. If it had sufficient funds at its command it could make the hospital system adequate from the point of view of the number of beds and the facilities provided. He knew that doctors gave many services which were not paid for, some to poor patients and some in an honorary capacity to hospitals. Taking the honorary hospital system first, if the system of people paying into a hospital fund was increased so that there was a larger proportion of people reasonably well off going into the hospitals, the honorary system as such would have to be modified to some extent and the doctor would have to be paid something for his services. The honorary system had grown up through many years during the days when the Government took little or no interest in the health of the people. The work had been done by the doctors, who persuaded people to build hospitals and give money for them, and these institutions were for the poor. Private people had given the money and the doctors their services. Nowadays the hospital was looked on as needed to look after a great many people other than the indigent poor, so that the time had probably come when some payment should be received by the doctors in return for the services they were giving to people who could pay for them. Whether it should be done by the Government or whether it should be part of a scheme, by increasing slightly, for instance, the scheme by which people paid for hospital treatment so that something could go to the doctors, he did not profess to decide, but it looked as if the honorary system would have to go. He did not think that the medical profession worried about the number of people whom it attended for nothing. As hospitalization became more popular, and there was some extension of the system by which the doctor would be recompensed for his services, Sir Charles Blackburn would favour a system which was not a salaried service. If one had a salaried service one had a certain group of people who went on the staff and gave their whole time, and one gradually eliminated the doctor who went to the hospital from time to time, which meant that one would eliminate the teaching and experience that a man got by going to the hospital. At the present time an enormous number attended hospitals in an honorary capacity, to whom a certain amount of part-time payment could be given, but they were getting experience which was transferred to their private practice. As one closed up a hospital and paid a limited number of people on its staff, one limited the amount of education that the doctors themselves were getting through attending particular kinds of illnesses and discussing cases with their fellows, all of which was to the benefit of the public. Sir Charles Blackburn placed a great deal of stress on the care of the child, who, he thought, was suffering most in Australia. He did not think that the adult was really suffering any great disability, although some things could be improved. Adults could get their treatment, but the children could not get theirs. He was thinking of the child from before birth up to the age when he went into some occupation. In any legislation which the committee recommended to Parliament, it should cover the whole range of the child's life within the limits indicated. Sir Charles Blackburn was on the staff of one of the hospitals which were now being built and used for the Army. Many of them he thought would be of tremendous value after the war for sanatoria or general use. They could be converted to civil purposes.

Correspondence.

THE PLACE OF QUININE IN THE TREATMENT OF SUBTERTIAN MALARIA.

SIR: In his paper, "The Place of Quinine in the Treatment of Subtertian Malaria", Dr. Austin D. Cust has described two factors in the causation of blackwater fever which I feel merit further emphasis even than he has given them.

The first of these is the association between blackwater fever and the irregular exhibition of quinine in cases of *Plasmodium falciparum* infections. The emphasis is on the word irregular. Treatment of a *Plasmodium falciparum* infection with quinine in therapeutic dosage will not precipitate an attack of blackwater fever where no quinine has previously been taken.

A typical story precedent to an attack of blackwater fever is something like this: A.B. is convinced that he has obeyed instructions when living in a malarious district and taken his five grains of quinine daily. But in fact this daily dose has been forgotten now and again without any attack of febrile malaria occurring. Gradually A.B. gets more and more careless. He finds that no apparent harm has resulted from missing an occasional dose of quinine, or if now and again he feels "off colour" following such omission he first takes an extra five grains and sticks to his routine for a time. Then one day before some important occasion he feels this premonition of fever and takes a ten or fifteen grain dose "just to make sure"—and immediately goes down with an attack of blackwater fever.

But one knows only too well that in cases of this sort the patient will insist, "of course, I have always taken prophylactic quinine", and I feel that with so many persons inexperienced in malaria control being now associated with suppressive (or so-called prophylactic) administration of quinine, it is well to emphasize that it is the cases of routine administration of quinine where "oh, of course, I may have missed a day or two now and again" is in the history, that the danger of blackwater fever becomes imminent.

It is not out of place here to stress the purely suppressive effect of even the most efficient routine daily administration of five grains of quinine. The term "prophylactic" is inappropriate. Quinine does not prevent invasion of the blood by the malarial parasite, nor in this dosage does it eliminate the parasite from the blood. It does no more than "suppress" the infection to below a febrile threshold. If therefore the administration of the quinine is stopped, an attack of febrile malaria is almost inevitable. For this reason members of the forces (and others) coming on leave from stations where administration of suppressive quinine has been routine, should be instructed to continue the dosage throughout their leave (if short) or should at once be given a curative course of treatment (if the leave is to be extensive).

How many soldiers coming from the north on leave have already gone down with malaria ten to fourteen days after arriving home on leave?

One other point in Dr. Cust's paper interests me especially. He says: "Cases of blackwater fever were restricted to those subjects . . . living in the same area as Europeans." It has long been in my mind that there is an association between blackwater fever and the passage of the strain of *Plasmodium falciparum* through hosts of two or more ethnological groups.

In my own work in Malaya blackwater fever has been a comparatively minor problem and I have had no time to spare from more urgent problems of malaria control to devote to this observation, but even in Malaya such cases as did occur did so where opportunity was established or probable for the passage of the strain of *Plasmodium falciparum* through two or more of such groups, for example, Aryan and Mongolian, Aryan and Sakai, Mongolian and Sakai.

In the global distribution of blackwater fever the opportunity for similar passage to occur is fairly easily seen and in Dr. Cust's cases the introduction of the Europeans to the existing Negroid population provided the opportunity.

Yours, etc.,

B. BARROWMAN.

65, Marlborough Hall,
Elizabeth Bay,
Sydney.

February 9, 1943.

ELECTION OF COUNCIL.

SIR: As the time draws near for another election of Council, it seems appropriate to me to emphasize the suggestion I have previously put forward for a representative State council.

The recent convention, which seems to have been thought a great idea by all, and the need for the best possible organization to deal with the present movement to introduce "social reforms" should give added piquancy.

Thus each body or group of medical men or women representing special interests could have its representative on the Council. This representative could, on the one hand, keep the group well informed and, on the other, have rapid access to the group for discussion and instruction on its wishes. He would be their representative, not New South Wales's representative, and could be anyone, specialist or

general practitioner, city or country, whom that particular group wished to choose to represent them. A council elected this way would be "tops" for close contact with its members and rapid, up-to-the-minute executive authority.

Yours, etc.,

143, Macquarie Street, Sydney,
February 17, 1943.

C. C. McKELLAR.

Notice.

TRANSPORT OF EXPECTANT MOTHERS TO MATERNITY HOSPITALS.

THE following notice is published at the request of the Medical Secretary of the Victorian Branch of the British Medical Association.

The Victorian Civil Ambulance Service is at all times prepared to provide ambulance transport to maternity hospitals. Each ambulance car is staffed by a driver and a bearer, and the rates charged, for both day time and night time, are: To public hospitals, minimum fee, 10s. 6d., covering transport up to four miles each way, and then 1s. 3d. a mile. To private hospitals, minimum fee £1 1s., covering transport up to eight miles each way, and then 1s. 3d. a mile.

Nominations and Elections.

THE undermentioned have applied for election as members of the New South Wales Branch of the British Medical Association:

Denneen, Alan Thirlwall, M.B., B.S., 1936 (Univ. Sydney), Macquarie Cottage, Argyle Street, Picton.

Musso, Anthony Fidelis Vincent, M.B., B.S., 1942 (Univ. Sydney), 469, Forest Road, Penshurst.

Naval, Military and Air Force.

CASUALTIES.

ACCORDING to the casualty list received on March 4, 1943, Captain J. F. Park, A.A.M.C., Prahran, who was previously reported missing, is now reported to be missing, believed killed.

Obituary.

ARCHIBALD GRANT BLACK.

WE regret to announce the death of Dr. Archibald Grant Black, which occurred on March 5, 1943, at Carlton, Victoria.

Medical Appointments.

Dr. Leslie St. Vincent Welch, pursuant to the provisions of *The Opticians Act*, 1917-1939, of Queensland, has been appointed a member of the Board of Optical Registration of Queensland.

Dr. John Coffey, pursuant to the provisions of *The Nurses and Masseurs Registration Acts*, 1928-1940, of Queensland, has been appointed Chairman of the Nurses and Masseurs Registration Board of Queensland.

Dr. Abraham Fryberg and Dr. Alfred Jefferis Turner, pursuant to the provisions of *The Nurses and Masseurs Registration Acts*, 1928-1940, of Queensland, have been appointed members of the Nurses and Masseurs Registration Board of Queensland.

Dr. John Andrew Leslie Wallace has been appointed a member of the Board of Official Visitors to the licensed house, "Bayview", Cook's River, New South Wales.

Dr. Reginald Jeffrey Millard, pursuant to the provisions of the *Nurses Registration Act*, 1924-1932, of New South Wales, has been appointed a member of the Nurses' Registration Board.

Books Received.

"The 1942 Year Book of General Medicine", edited by George F. Dick, M.D., J. Burns Amberson, junior, M.D., George R. Minot, M.D., S.D., F.R.C.P. (Edinburgh and London), William B. Castle, M.D., S.M., M.D. (Hon.), Utrecht, William D. Stroud, M.D., George B. Eusterman, M.D.; 1942. Chicago: The Year Book Publishers, Incorporated. 7¼" x 4¾", pp. 848, with illustrations. Price: $3.00, post paid.

Diary for the Month.

MAR. 15.—Federal Council, B.M.A.: Meeting at Melbourne.
MAR. 16.—New South Wales Branch, B.M.A.: Medical Politics Committee.
MAR. 17.—Western Australian Branch, B.M.A.: Branch.
MAR. 23.—New South Wales Branch, B.M.A.: Council Quarterly.
MAR. 25.—New South Wales Branch, B.M.A.: Annual Meeting.
MAR. 25.—South Australian Branch, B.M.A.: Branch.
MAR. 26.—Queensland Branch, B.M.A.: Council.
MAR. 30.—New South Wales Branch, B.M.A.: Council.
APR. 1.—South Australian Branch, B.M.A.: Council.
APR. 2.—Queensland Branch, B.M.A.: Branch.
APR. 6.—New South Wales Branch, B.M.A.: Organization and Science Committee.
APR. 6.—Tasmanian Branch, B.M.A.: Branch.
APR. 7.—Western Australian Branch, B.M.A.: Council.

Medical Appointments: Important Notice.

MEDICAL PRACTITIONERS are requested not to apply for any appointment mentioned below without having first communicated with the Honorary Secretary of the Branch concerned, or with the Medical Secretary of the British Medical Association, Tavistock Square, London, W.C.1.

New South Wales Branch (Honorary Secretary, 135, Macquarie Street, Sydney): Australian Natives' Association; Ashfield and District United Friendly Societies' Dispensary; Balmain United Friendly Societies' Dispensary; Leichhardt and Petersham United Friendly Societies' Dispensary; Manchester Unity Medical and Dispensing Institute, Oxford Street, Sydney; North Sydney Friendly Societies' Dispensary Limited; People's Prudential Assurance Company Limited; Phœnix Mutual Provident Society.

Victorian Branch (Honorary Secretary, Medical Society Hall, East Melbourne): Associated Medical Services Limited; all Institutes or Medical Dispensaries; Australian Prudential Association, Proprietary, Limited; Federated Mutual Medical Benefit Society; Mutual National Provident Club; National Provident Association; Hospital or other appointments outside Victoria.

Queensland Branch (Honorary Secretary, B.M.A. House, 225, Wickham Terrace, Brisbane, B.17): Brisbane Associated Friendly Societies' Medical Institute; Bundaberg Medical Institute. Members accepting LODGE appointments and those desiring to accept appointments to any COUNTRY HOSPITAL or position outside Australia are advised, in their own interests, to submit a copy of their Agreement to the Council before signing.

South Australian Branch (Honorary Secretary, 178, North Terrace, Adelaide): All Lodge appointments in South Australia; all Contract Practice appointments in South Australia.

Western Australian Branch (Honorary Secretary, 205, Saint George's Terrace, Perth): Wiluna Hospital; all Contract Practice appointments in Western Australia.

Editorial Notices.

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